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Original Articles

REMARKS ON TIC AND CHOREA

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CHICAGO

The tic of this paper, be it understood, is not tic douloureux or trifacial neuralgia, but painless and purely motor tic, sometimes called "convulsive tic," but generally just "tic." There being no really good English term for the disorder, the French word has been almost universally adopted. "Habit spasm" is perhaps the best that we have, but the trouble is more than a habit, less than a spasm, or rather not a spasm at all. Tic belongs to the hyperkinesias; that is, it is a disorder of movement pathologic in its excess or exuberance. It is a motor obsession, an imperative impulsion voicing itself in movement. Although chorea has little in common with tic except excess of movement, the latter is not infrequently mistaken for the former. This fact is the only justification for the following trite remarks.

The movements of chorea are involuntary and not amenable to control by the patient. Those of tic, however bad, are always volitional, even if not voluntary, and may always, at least for a short time, be controlled by the will. The first statement needs a little qualification. Long ago Weir Mitchell called attention to the fact that in some cases of chorea the choreic movements are aggravated by voluntary motion, in others rather diminished during voluntary movement and in still others the patient can, to some degree for a very short while, hold the abnormal movements in abeyance. But there never is the complete control which can always, in some way or other, be shown to exist in tic. As a rule the patient with tic says he "can't help it," and it is perfectly true that the tic movement often is unconscious, just as the man with the fixed habit of profanity swears involuntarily and unconsciously; but in the one case, as in the other, it is always possible to awaken consciousness and inhibition. In the presence of a clergyman or of ladies the most profane man will talk for an indefinite time and never utter an oath. Many a time I have sat by a youngester with tic, holding a pin in my hand and, the child understanding that the result of a jerk or twitch on his part would be a jab with the pin, I have waited long in vain for the movement which was accustomed to come every minute or less. This maneuver never succeeds in chorea.

In chorea the movements are incoordinate, purposeless; pathologic in the association and sequence of muscular contraction. They are grotesque because of their incoherence and disorder. In tic the movements are coordinate and purposive; physiologic in the association and sequence of muscular contraction. They are grotesque only because malapropos. To elaborate a bit: the movements of chorea are of a perfect type of irregular movements such as a well person never makes. One can imagine no purpose for which they would be appropriate. Whether the jerkings and writhings be of the fingers, an arm or the entire body, they have no analogy in normal function. If perchance an isolated movement looks like a natural one it is only casual and does not happen again. The very visage of the movements, if one may use such an expression, is pathologic.

On the other hand, the movements of tic are coordinate and such as well persons do often execute. They are movements adapted to an end, a natural and ordinary end, only an end which is no longer there. They are unnatural in frequency of repetition without obvious cause, but from looking at a single movement one could not know that it was pathologic; its aspect is normal. To state it another way: the movement itself may be blameless, but lacking proper parentage, it is illegitimate. For instance, a frequent tic in children is a peculiar shrug of the shoulder involving the arm, such as a nervous or sensitive child makes when the armhole is too tight. Indeed, the tight armhole, as we shall see, often starts the tic. When there is no irritant from the clothing, no physical cause for the shrug, when the movement is oft repeated, uncontrollable and has become a tic, it still preserves its coordinate and purposive character. It looks the same; but it may become greatly exaggerated, pathologic in its excess.

In chorea, as the movements are entirely disordered and neither have nor have had any object, no two movements in succession are just alike. In tic the same movement is repeated over and over. This is perfectly natural from the nature and origin of the disorder, presently to be spoken of.

When choreic movements grow worse and spread, they do so without relation to anatomic or physiologic groupings, except that in the beginning and in mild cases they are apt to be limited to one side of the body. A tic extends in one of two ways. Ordinarily it spreads by involving adjacent and functionally related groups; by adding correlated physiologic acts. A tic of the nose is apt soon to involve the lips and adjoining facial muscles. The sounds of snuffing or sniffling are produced and if the disease grows worse pharyngeal or laryngeal sounds may be expected with strong inspiratory or expiratory efforts. Possibly it spreads by another physiologic group: face, platysma, neck muscles, shoulder girdle, etc. Or a tic may become worse by the starting of a really new tic in some other part of the body, due to some other exciting cause acting on a susceptible individual. The same child may have a tic of the orbicularis palpebrarum started by a blepharitis marginalis and then a tic of the neck started by a tight collar, just as an individual may have a furuncle on the nose and a boil on the back.

Along the line of differentiation as regards volitional control is the distinction that chorea notoriously is disabling while tic is not. Frequently one of the earliest signs of chorea is the unexpected dropping of things. A patient with bad chorea simply can not write. Tic is troublesome but scarcely disabling. The patient with tic of the arm writes as well as ever. His malady does not jerk his hand unawares. Indeed, I may say that his malady does not jerk his hand at all. When the impulsion to jerk can no longer be inhibited, he takes pen from paper, then he jerks his hand once, twice, thrice —and resumes his writing. I once knew a very successful artist with an almost generalized tic. It sometimes delayed his work but did not impair its quality. Tic is not rare in successful musicians.

A striking difference between tic and chorea is that whereas the movements of the latter are uncontrollable, physically distressing and wearing, the movement of a tic, the yielding to the impulse, is attended with a certain sense of gratification or relief. It is the restraint of a tic that constitutes the strain, not the movement itself. This is well illustrated by an occurrence which I have observed many times. Owing to surroundings, command of the physician or some other motive the patient suppresses his tic, in whole or in part, for a considerable period, say fifteen to thirty minutes. Relieved from surveillance or his embarrassing surroundings, the patient at once goes on a little spree of tics, the strain is relieved and he feels more comfortable. The same sort of effort to gratify his abnormal appetite without the indulgence being apparent is seen in the little tricks by which the tiqueur tries to cover up his tic. The most frequent is immediately to add some ordinary movement to the tic. The patient will make an uncalled for and consequently abnormal shrug or twist or jerk less apparent by suddenly changing his position, or by stooping to pick up an imaginary object, or readjusting the clothing. A tic or phonation is disguised by clearing the throat or coughing; that is, by grafting a simulated normal manifestation onto the pathologic, he produces a plausible *tout ensemble*.

A generalized and violent chorea is profoundly exhausting. It can be endured for a relatively short time. Generalized and violent tic, which is really the association in the same individual of many tics, the *maladie des tics* of the French, may last for years and not even interfere with ordinary pursuits. I have known a successful business man who was in almost constant motion. As he walked the street the arms were thrown about in various directions, one foot would suddenly be raised as if the man had stepped on a live coal; he emitted various sounds, sometimes almost rising to a shout, and jerked the head about as if to throw the hat from his head. His conversation was broken by sundry snorts, ahems and exclamations. Yet he continued to attend to his affairs day after day as if in good health.

While convulsive tic is almost purely motor in manifestation, its inception, in the vast majority of cases, I believe to be sensory. Take one of the most frequent and simple examples. A child acquires a nasal catarrh which causes a little irritation and slight discomfort about the nostrils. This, not unnaturally, begets the familiar drawing, wrinkling, twisting movements of nose, lip and adjoining parts. But this response is not yet tic. When the irritation has been relieved, when there is no longer a local sensory stimulus and the twitching still continues; when the patient has great trouble in controlling it and the indulgence is attended with a sense of relief, then it is tic. When this twitching spreads to near-by and associated groups of muscles and the individual has become the slave of his tic appetite, then he is a confirmed tiqueur, a tic maniac, and hard to cure. In this stage of the affection the original sensory impression which pulled the trigger may be, often is, entirely forgotten, but none the less it was there.

Some cases of tic seem to start as a mere nervous restlessness or fidgetiness or perhaps as only a vague sense of bodily discomfort or embarrassment. This, too, it will be conceded, is essentially a sensory condition. Some tics begin as something which looks like occupation neurosis, but these cases likewise are really of sensory origin. The occupation or, rather, excess of occupation, causes a more or less localized pain, ache, discomfort or fatigue, and this sensation starts the repeated muscular contraction which is some relief to the patient and which ultimately develops into a tic. Occasionally the disorder seems to arise from imitation. In the ultimate analysis I believe that this, like the others, is a sensory origin, but I shall not stop to insist on it. I do wish to insist that tic never is a "reflex neurosis;" that is, a tic of one part caused by irritation or disease of a distant and not obviously related part of the body. For instance, that a uterine fibroid or hemorrhoids may have as a "reflex" a tic of the orbicular palpebrarum is utterly absurd. On the other hand, I can readily imagine that disease of a viscus, by causing pain or discomfort in one of the superficial areas as described by Head, may cause a tic of the muscles underlying this area, although I do not recall having seen such a case.

I dislike to leave the subject of tic without a word concerning spasmodic torticollis—granting that it never could be mistaken for chorea. Though this distressing disorder seems to be something *sui generis*, a thing apart, personally I believe that it belongs with the tics. If it be not a true tic certainly the relationship is very close. Clearly it is not, what it often is thought to be, a local disease, an affection of the spinal accessory nerve or of the neck muscles. When Brissaud called it "mental torticollis" he did a helpful thing in emphasizing its essentially psychic nature. On the other hand, it can not be denied that the disorder in some ways approaches writer's cramp and allied disorders. Still, the points of resemblance with tic are, to my mind, much more striking. I briefly mention just half a dozen of them:

1. The subject of spasmodic torticollis, as the subject of tic, is always a neuropath. He shows the same sort of abnormal susceptibility, the same psychomotor inability, the same lack of inhibition. Several times I have thought that I had found an exception to this rule, but in each case more intimate acquaintance with the patient has shown me the error of my first impression.

2. What has been said of the sensory origin of tic applies to spasmodic torticollis. For example, muscular rheumatism, the ordinary "stiff neck," is not rarely the origin of the trouble.

3. The emotional state of the patient has much to do with the neck spasm. It is always worse when the patient is self-conscious or "upset." On the other hand, intense mental preoccupation may entirely abolish the trouble—for a brief space.

4. In torticollis there is the same strain in repressing the muscular drawings as in other tics, and the same sense of relief in "letting it go." A patient riding in a street car will repress the movements until he can stand

it no longer. Then he will hide behind his newspaper and have a little motor indulgence—which gives him a measure of sensory satisfaction or relief.

5. The muscular contractions of spasmodic torticollis are not true spasms; they are volitional. And they always are more or less under voluntary control. I can not take time to elaborate this point, but the following two perfectly characteristic incidents will serve as an illustration: In a crowded railway station I was watching a man with typical spasmodic wry neck. The contractions almost constantly rotated his head strongly to the right so that he had some trouble in moving about among the many people. In the height of one of the so-called spasms a locomotive bell suddenly sounded to his left. Instantly he turned his head to look in that direction, and the movement was as prompt, as smooth and as complete as it could possibly be.

Quite recently, by means of rest and educative exercises, a patient under my care had very considerably improved; that is, under my direction she could move the head in any direction and hold it in any position at will or to dictation. But her husband complained that at home and on the street she was very little better. One day he came with her. With growing impatience and irritation he watched her go through her exercises without a hitch, then quietly sit and converse with me without a trace of the old jerking and drawing. And when I said, "There, can't you make her do that?" he replied, "Not by a d—d sight; you's better take her and keep her."

6. The patient with spasmodic torticollis invariably has some trick of restraint: what Brissaud has called a restraining gesture. It is one of the most striking things connected with this peculiar neurosis. A man whose neck muscles are twisting his head around with the greatest violence will gently place a finger against his chin or lay his palm over the occiput, when the muscles at once relax and the head assumes its normal position. Oftentimes if the head can merely touch the back of a chair or the wall the trouble is suspended.

Elsewhere[1] I have related the most striking example of this restraining gesture with which I am acquainted. It seems sufficiently illustrative for repetition: An unusually muscular man had a torticollis which repeatedly — indeed, almost constantly — powerfully rotated his head to the right. But at any stage of this "spasm," which no manual force could possibly overcome, if the patient extended the right arm, pointed the index finger horizontally at his nose and then moved the hand rapidly toward this feature, the head would immediately move in unison with the hand and rotate into its proper position.

As tic and chorea are in nowise related, the proper treatment of the two affections is radically different. In foundation the tic is a mental disease or, as possibly a somewhat broader expression, we may say a psychic disease. As I have already stated, the exciting cause may be a local sensory irritation or discomfort or pain; but such an exciting cause had no effect in a normally resistant individual. For the development of a tic there must be an underlying hypersensitiveness or lack of balance and the fully developed affection belongs essentially to the obsessions or imperative impulses.

Above I have likened the local irritation to a trigger which sets off the tic; but the individual must previously have been loaded—by misfortune of inheritance or other influence.

Still, as a local difficulty is often the exciting cause, the disease never would begin were such local trouble not there, and, consequently, it is reasonable to assume that the discovery and removal of any and every local disturbance must be the primary move in the treatment of tic. Equally, of course, must everything be done to promote the general health, vigor, vitality and tranquility. These things having been done, the rational treatment must really be a system of education or training, a training to decrease sensitiveness, to strengthen inhibition and increase self-control. This is quickly said, but the task itself may be a time-destroying, tact-demanding one. Sometimes it is a hopeless one. To this must often be added some element which will awaken the consciousness of the patient to the presence of his tic. As I have already said, while a tic is always volitional, it may be unconscious or subconscious, and, naturally, the patient can not control the movements unless he knows that he makes them.

Harking back to the simplest example which I adduced a few minutes ago, of a child with nasal catarrh and irritated nares, such a patient may frequently be cured by removal of the nasal catarrh, rendering the parts perfectly comfortable, followed by repeated admonition by parents and teachers. If the case be more confirmed, the impulse more imperative and self-control feebler, it is necessary to attach some discomfort to the gratification of the appetite to tic. What I have found to be the readiest and most effective means is the simple prick of a pin, but this must be repeated every time that the patient indulges in his so-called spasm; that is, each indulgence in the tic movement must be accompanied by a discomfort. Soon the patient finds that the satisfaction of the tic is exceeded by the dissatisfaction of the prick. Naturally, he strives for the greater comfort. When the patient's knowledge that every abnormal movement is accompanied by a penalty becomes part of his consciousness he is far on toward recovery. When this knowledge becomes subconscious and the patient instinctively, subconsciously, automatically acts on it, the tic disappears. And when the impulse to make the movement, the appetite for it, has ceased, he is cured.

The principles involved in this every-day example apply to all cases, mild or severe. An elaboration of detail seems unnecessary. But it is only fair to add that in a severe case success depends on attention to all of the details involved in carrying out the principles above outlined.

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1. Convulsive Tic, THE JOURNAL A. M. A., Feb. 11, 1905, xliv, 435.

Prophylaxis of Seasickness.—A letter from Holland in the *Wiener klinische Rundschau*, Jan. 20, 1908, states that a naval surgeon, van Trotsenburg, has been testing the sensitiveness of different individuals to shifting levels by having them stand blindfolded on a platform arranged to change its level noiselessly in various ways. Neither age nor other physical conditions seemed to affect the findings of the test, but persons accustomed to ships were much less sensitive to the movements of the platform than others. He is convinced that a little exercise on such a platform, before starting on a sea voyage, would have a powerful influence in warding off seasickness, and he recommends the installation of a swinging platform of this kind in connection with the floating sanatoria.

THE ANAMNESIS OF SURGICAL CASES

ITS PECULIAR IMPORTANCE TO THE HOUSE PUPILS OF HOSPITALS AS A MEANS OF STIMULATING INTEREST IN HISTORY-TAKING

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In Dr. M. H. Richardson's article[1] on "The Significance of Clinical Histories Before and After the Operative Demonstration of the Real Lesion," attention is called from a high place to a much-neglected part of medical education and medical practice. So essential is the importance of careful, intelligent history-taking that our wonder must be the greater at its relative neglect not only in our medical schools but, strange to say, in the wards of our great hospitals. It should be somewhat of a reproach to us that such an article as Dr. Richardson's should be considered necessary. That it is both necessary and timely the visiting staffs of our hospitals will bear ample testimony.

I think we may safely assume that the average medical history in the record-books of a hospital is better taken than the average surgical history. A cursory examination of hospital records will indicate this. The reason is apparent. Aside from history-taking in that period of his house officership, the medical house pupil has much less to do than his surgical confrère. Dressings, bandaging, accident work, etc., do not fall to his lot. It does not follow, however, that the clinical history of a surgical patient is any less important than that of a medical patient. In fact, it is with the great importance of properly taken clinical histories in the surgical wards that this paper has to do, and when in the course of the article I speak of house pupils, surgical house pupils only are meant.

The average house pupil does not look with favor on his history-taking period. He regards it as a dark place through which he must pass to reach regions of light beyond, a sort of unpleasant chore to be done with as little or as much thoroughness as may suffice to satisfy the occasional hasty glance or question of the busy visiting surgeon, an occupation of far less dignity than the more objective portion of his duty (bandaging, dressing, accident work, assisting, etc.). If my memory serves me well, my ideas in my apprentice days were not unlike these just expressed. My records of those times doubtless bear witness to the fact. That the last decade has brought improvement in this regard is not to be denied. But that the present standard of clinical histories is entirely satisfactory is very far from being true. Undertake, if you will, the study of a series of surgical cases extending back over a few years of hospital records and prepare yourself for disappointment. Errors of omission and of commission are so frequent and so flagrant that much otherwise valuable material is for many purposes rendered almost worthless. It is discouraging to find that perhaps in four out of ten clinical records the presence or absence of important, essential features of a case has gone unrecorded.

Who has been to blame for this condition of affairs? If it is to continue, on whose shoulders is the responsibility to rest? Occasionally the patient is at fault either through inability to express himself in English or through dense ignorance. It is possible, too, that there may be house pupils who do not take sufficient interest in their work to make an effort to take a good history; the lazy house pupil will be with us always. But, speaking generally, it is the visiting men who must be indicted here. It is their failure to give competent instruction, their neglect to make intelligent criticism, their almost total lack of interest in the matter, that has allowed history-taking to become and continue unsatisfactory. If we make no attempt or take no pains to teach the why and the how of history-taking, how can we expect the house pupils to grasp its importance, and why should we expect improvement in their work?

As we go on in years, the why grows more and more evident. No one can doubt the value to patients, present and future, of good history-taking. That is the prime why. But in a purely selfish sense, for the house pupil himself there can be no more valuable training, no more fruitful experience, than this opportunity of checking up by operative findings, by living pathology, his story of the patient's ills, his objective findings and his conclusions from both premises. His senses will be trained to observe accurately, his mind to deduce soundly. It lies within his grasp to learn from both his successes and his failures and to broaden and strengthen his whole professional foundation. The better his histories, the more accurate his observations, the sounder his deductions, the more useful will he be to humanity, the more satisfactory to himself.

A recent article by Mr. B. G. A. Moynihan[2] of Leeds should be carefully read by every surgical house pupil and, for that matter, by every surgeon. He calls attention to the urgent need of an earnest investigation into the inaugural symptoms of disease, to the paramount importance of the patient's own story, to the great opportunity that legitimate surgery has of demonstrating the living pathology of all stages of disease, and by comparison with the sufferer's story, by cross-examination of the patient after recovery from operation, to work the knowledge thus gained into such a form as will enable us to recognize and treat disease earlier and with increased chance of permanent relief. Says Mr. Moynihan:

> The surgeon, when he is about to operate on a patient suffering from any abdominal disease, has the opportunity to observe not only those parts for which his operative interference is immediately necessary, but also all other viscera which can be laid bare through the same incision. If a morbid process in its earliest stage be then discovered, perhaps in parts other than those primarily concerned in the operation, the patient's story of his sufferings may be retold and cross-examination conducted thereon, as soon as recovery from the operation is complete. It rests, therefore, in no small degree with the surgeon to elicit the inaugural symptoms associated with the pathologic changes which he finds within the abdomen and by making sure of their significance and of the due order of their appearance to furnish the knowledge that will ensure clinical recognition of visceral diseases in their early stages, in the stages when they are surely amenable to curative treatment.

What an added interest this should give to history-taking! What a live subject it should make of it! What an opportunity for the house pupil of this day, when operations are so frequent and veried! What a change this should bring about in the house pupil's idea of what is the vitally important part of his hospital training! How far wrong our training of house pupils has been is evidenced by the present-day measure of value put by them on hospital service. This or that hospital service is judged good or bad, worth taking or not worth taking, by the amount of major operative

1. Boston Med. and Surg. Jour., clviii, Nos. 15 and 16.

2. Brit. Med. Jour., Nov. 28, 1908.

work given to the house pupil. Social and other influences enter into the matter to a greater or less extent. But the chief question the prospective house pupil asks himself is: "How much major operative work am I to get?" Of what really small moment to him is his doing one or, perhaps, more appendicectomies, cholecystectomies, herniotomies or whatever operation you will — of what little relative importance is that compared with his opportunity of acquiring the ability to take a good clinical history, to make sound deductions from the patient's story and his own objective finding and to care properly for his patients before and after operation! I do not mean to say that a surgical house pupil should go out wholly untrained in the technic of his specialty. But I do intend to say that the technical part has been magnified (at least in the house pupil's eye) out of all proportion to its relative importance. Surgery is all technic only to the operator who lacks a conscience or to the heedless onlooker. To the honest surgeon his profession is very far from being entirely technical. The average house pupil evidently often fails to fully comprehend the truth of this statement.

Almost three-quarters of a century ago Sir Benjamin Brodie, in his "Introductory Discourse at St. George's Hospital," expressed a truth which is as potent to-day as it was then. "It is not," he said, "by going through the form of walking round the wards daily with the physician and surgeon that you will be enabled to avail yourselves of the opportunities of obtaining knowledge which the hospital affords. You should investigate cases for yourselves; you should converse on them with each other; you should take written notes of them, and in doing so you should make even what are regarded as the more trifling cases the subjects of reflection. Some individuals are more, others less, endowed by nature with the power of reflection; but there are none in whom the faculty may not be improved by exercise, and whoever neglects it is unfitted for the medical profession. You will be at once sensible of the great advantage arising from your written notes of cases." Comment is quite unnecessary.

It manifestly devolves on hospital staffs to teach the how of history-taking to house pupils. This should be a part of our routine work, at least until each surgical service has its resident surgeon. Right here it may be said that by no means the least important of the arguments in favor of having resident surgeons is this very fact that men, trained as they would be, could be safely entrusted with the duty of teaching house pupils not only history-taking and examination-making, but also the general care of patients. Surgeons, house pupils, patients, all would be the better for it. But until the day of the resident surgeon has come hospital staffs must do this portion of their duty. Many of us have been remiss, we at the Carney Hospital no less than others. Realization of the fact has led us to adopt corrective means. In the first place a resident surgeon has been appointed. In the second place a card system of typewritten cards has been adopted which we believe has helped house pupils in their clinical history-taking. Examples are appended below. The scheme is presented not as an infallible method of assuring an intelligent history, but only as a useful way of directing the trend of a house pupil's questioning and inquiry and as a means of making certain the recording of the more important features of cases.

It may well be objected that an intelligent use of the cards presupposes (e. g., in abdominal affections) at least a probable diagnosis. It must be admitted that in abdominal cases the house pupil would have to make a preliminary loose diagnosis, as, for instance, the probable general localization of the trouble (upper abdomen, right iliac region, etc.). But his use of the cards covering affections of this or that region, his obtaining the answers to the questions required would lead him to the making of a more exact diagnosis. A house pupil in his general talk with a patient can in the great majority of cases get an idea of the region affected and can usually come to the conclusion that the symptoms are those of one of two or three diseases. Besides, it is not necessary that a complete history, with all the minutiæ, should be obtained at one sitting, so to speak. Both the resident surgeon and the visiting man may see the case in the meantime and aid by suggestion and opinion.

The cards are not intended to cover every possible point in a clinical history; they seek to call the house pupil's attention to the kind of knowledge to be sought from the patient, to the essential points in a story, and to indicate certain lines along which the questions may

BREAST TUMORS
HISTORY

Family History—Cancer? Tuberculosis?
Marital and Menstrual History.
Lactation—Inflammation? Abscess?
Trauma?
What first called attention to trouble? How long ago?
Rate of growth? Any increase in size during menstruation?
Pain, If present, how long? location, character, transmission.
Cough?
Any loss of weight or strength?

BREAST TUMORS
EXAMINATION

Location of tumor (which quadrant?). Its size, shape, consistency, movability (adherent to skin or to deeper tissues?), tender? Dimpling or discoloration of skin over tumor?
Ulceration? Sinuses? Charcter of any discharge.
Nipple. Eroded? Ulcerated? Retracted? Character of discharge from it, if present.
Any involvement of axillary, supraclavicular or cervical glands?
Chest examination.
Arm. Edema?
Metastases anywhere? Liver. Size. Nodular?

STOMACH AND DUODENUM
HISTORY

Family History—Cancer, etc.?
Past History—Dyspepsia? Indigestion? Gas? Pain? Character and duration of attacks? Food preferences?
Present Illness—Pain or distress—location—character (constant, intermittent, dull, sharp, etc.). Transmission—relation to ingestion of food (before? after? relieved or increased by? How long after ingestion?—"Girdle pain"?
Any attacks of sudden, sharp, prostrating pains?
Belching gas—When?
Vomiting—When? Does it give relief? Relation to ingestion of food? Frequency?
Vomitus—Amount? Color? Contents? Acid? Blood? Food?
Nausea? Water-brash? Hematemesis?
Ever jaundiced? Chills? Sweats?
Appetite—Character of diet. Loss of weight or strength? Constipation? Diarrhea?
Ever felt tumor? Ever seen blood in stools?

STOMACH AND DUODENUM
EXAMINATION

General—Cachexia? Anæmia? Palpable supraclavicular glands on left?
Tumor? If present, location, size, movability (of itself? with respiration?), tenderness, consistency, etc.
Tenderness—Location? Degree?
Visible pulsation? Visible peristalsis?
Outline of stomach, (a) empty, (b) distended.
Liver—Enlarged? Nodular?
Findings in stomach washings after ordinary meals, after test-meals, etc.
Examination of stools for blood.
Blood examination.
Signs of locomotor ataxia?

lead. The cards,[3] therefore, are to be regarded as indicators rather than as absolute guides.

These cards, covering a wide range of subjects, are perforated and hung on a large ring which the house pupil carries with him on his history-taking errand. There are also cards which indicate the points to be noted in the postoperative course of patients, e. g., the immediate and more remote postoperative symptoms, the treatment and its result, the placing and withdrawing of wicks, sutures, etc., the character and amount of discharges, etc.

Furthermore, if in connection with any disease some new point of diagnosis, etc., is brought out, the placing of this on the proper card calls the attention of the house pupil to it, its presence or absence is noted and statistics bearing on its importance are thus obtained.

Our experience thus far has led us to feel that the use of these cards puts the house pupil in the way of taking an intelligent history and aids him in the formation of good habits in that direction. If further experience corroborates this view, we shall feel that something needed has been accomplished.

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OPERATIVE TREATMENT OF TUBERCULOUS JOINTS

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The treatment of tuberculous-joint disease has long been a disputed question, and the profession is not today agreed on a uniform plan of action.

Many methods of treatment have been advanced and these methods have been supported and resupported by long series of statistics and by thoroughly credible reports of results.

When the complete review has been made it seems to me that we must conclude that there is no one correct line of treatment for tuberculous-joint disease, but that the method selected must depend on the nature and stage of the lesion, the age and social position of the patient, facilities for treatment, the individual experience of the physician in charge, or that results must be accomplished by a combination of all available methods.

Treatment by rest, diet and in favorable hygienic conditions, by Bier's congestion hyperemia, by iodoform injection, by vaccine therapy and by cutting operations must each have a definite field of applicability or be used in proper combination.

It is not my purpose to discuss the comparative value of the different methods of treatment that have been advanced, nor does my experience justify me in drawing conclusions regarding the entire field of application of the operative treatment. My experience has been largely confined to the operative treatment of adults who have suffered from this disease. Inasmuch as seven-eighths of all patients who suffer from joint tuberculosis are less than fourteen years of age, it will be readily seen that my experience and results can not justify general conclusions.

Twenty-five patients have come under my care in whom the operative treatment has been used, and it has seemed desirable to me to report the results in these cases as a contribution to the general subject.

3. Cards 5⅞ inches by 3 15/16 inches.

Of the lesions, 13 have been in the knee, 7 in the ankle, 3 in the elbow, 1 in the wrist and 1 in the hip. Inasmuch as a fairly uniform method of procedure has been used in these cases, I wish first to describe the operative technic in each joint.

TECHNIC OF OPERATIONS ON THE KNEE JOINT

In the knee joint the incision is uniformly made from condyle to condyle across the center of the patella, the lateral quadriceps expansions are divided, the patella is sawed through, the knee is acutely flexed, the fragments of the patella are drawn upward and downward and a complete exposure of the ends of both bones and of the entire joint is obtained. A correct estimate of the nature of the lesion can now be promptly obtained, and the points considered are (1) bone involvement, (2) extensions outside the joint into the soft tissues. A tourniquet is always used for the purpose of giving a bloodless field for accurate dissection.

My experience includes an unusually large percentage of purely synovial cases (fifteen out of twenty-five), under which heading I would include those cases in which there is merely a superficial erosion of bone. When the case is of this type a sharp knife dissection begins in the lower half of the joint, just behind the patella, progresses in a systematic manner and removes the synovial membrane, together with all thickened tissue, out to the quadriceps aponeurosis.

When the dissection reaches the head of the tibia a heavily bladed yet sharp knife is used and the bone is pared, not only around its borders, but over the upper surface, when the articular cartilage is diseased or loosened from the bone.

When this dissection reaches the posterior border of the tibia it is discontinued for the time being. The dissection then begins first on one side, then on the other, then between the condyles, and all tuberculous or suspected tissue is in the same manner dissected around the head of the condyle to the popliteal soft tissues.

When this point has been reached the bones can be much more freely separated than previously, and the same sharp dissection is continued over the entire posterior portion of the joint, particular attention being given to the posterior border of the tibia.

Caution must be used in this part of the dissection not to injure the popliteal structures. When this part of the dissection has been completed the upper fragment of the patella is drawn strongly upward and the quadriceps bursa is accurately dissected out. In some instances this cannot be completely accomplished without a lateral longitudinal incision at the outer border of the patella. Any superficial erosion of either bone or small area of necrosis is cut out with a sharp knife; never with a curette. Indeed, a curette is never used in this operation unless there should be a sinus or cavity extending into the soft tissues in such a way that free incision and dissection is impossible. The curette necessarily mashes the tissues and exposes the patient to the risk of having tubercle bacilli jammed into deeper tissues, which are left behind. I would make a special point of clean-cut, sharp dissection with a knife. A most careful search is always made for bone foci or minute sinuses extending into the deeper bone structures. The bone-paring is always made down in perfectly healthy bone.

When there is a focus of bone tuberculosis in the head of the tibia or in either condyle and the focus is not of a size sufficient to necessitate the re-

moval of the end of the bone, the area is likewise excised by cutting around with a sharp knife well below the deepest point of the focus; then a sharp gouge is used to lift out this cylinder or one of bone tissue. I consider this decision as to the extent of bone involvement a heavy responsibility and one not to be undertaken until careful microscopic study of such tissues has justified a fair degree of accuracy in such judgments.

When the dissection has been completed, pure carbolic acid is swabbed over the entire area of dissection and left in contact with the tissues for three minutes. Alcohol is then applied to neutralize the carbolic acid. The entire dissection has been conducted according to the same principles followed in malignant disease.

When cavities are left in the bone these are carefully dried and filled with the Mosetig-Moorhof iodoform bone-plugging mass, which is allowed to harden. The tourniquet is now removed, all bleeding points are secured, and the wound is ready for closure.

Conservatism in the removal of bone has been my rule in all these operations, and the end of the bone must be very seriously damaged to justify sawing it off. Those patients in whom erosion or atypical excision is done heal as satisfactorily as after a typical excision, and the function has seemed to me so much improved by maintaining an extremity of normal length that I consider this to be a very important point. Those patients who have not had bone removed get along almost without a limp. Indeed, one young woman whose occupation was that of elocutionist has continued her professional work on the New York stage and very few people know that she has a stiff knee. Even her manager did not know this fact until he saw her going upstairs.

Bone foci of considerable size can be cut out and filled in with iodoform mass without great sacrifice in the length of the bone. In Case 10 the upper surface of the tibia was sawed off in an excision and the focus was seen to extend much deeper into the head of the tibia. When this focus was removed a cavity was left which was, I think, about the size of an egg. This was carefully filled in with iodoform mass. This patient has had perfect recovery and has a solid, well healed leg.

The wound is usually closed with interrupted No. 3 plain catgut. In excisions two chromic gut sutures are usually put into the bone through drill holes to maintain position until the splint can be applied. The patella is not wired, since a heavy suture on either side and suture of the soft tissues in front are usually sufficient to maintain the apposition. A drainage tube is regularly placed on one side or the other to take care of the blood and serum for the first three to seven days; then it is removed. A strip of sheet rubber or gutta-percha tissue is usually placed on the opposite side of the joint for a similar reason and left for the same length of time.

After the wound is closed dressings are applied in such a way as to facilitate subsequent change. Plaster-of-Paris bandages, four to five inches wide, are then made into a strap long enough to extend from the gluteal fold to the tips of the toes. This strap is made of about twenty layers of gauze and a heavy piece of strap iron about eighteen inches long is included. This reinforced plaster-of-Paris strap is then placed on the posterior surface of the extremity, which has been well wrapped with ordinary splint cotton; then plaster-of-Paris bandages are used to make an encasing splint, which extends from the perineum to the tip of the toes but does not include the knee.

When a sufficient number of turns have been made to give solidity a second strip of hoop iron is placed on the anterior surface. This strip is bent in such way as to make a high arch over the knee, the arch being six to eight inches broad at the base, and the strip is curled up at each end to make a hook. More plaster-of-Paris bandages are now rolled on to incorporate this anterior iron strip. When the splint is completed and the plaster hardened immobilization is complete; the arch at the knee gives free access to the wound and the hooks at either end, together with the arch at the middle, give three points from which the entire extremity can be suspended by rubber cords to a longitudinal bar which is placed over the bed. This swinging position adds greatly to the comfort of the patient.

The wound is dressed on the third day, drainage removed on the fifth to the seventh day. The sutures are removed on the tenth day; the wound is healed, as a rule, in three weeks. The splint is removed in three to five weeks and replaced by a simple encasing splint which extends from the ankle to the middle of the thigh.

Bony union is often very slow and may not be complete until eight to twelve weeks after operation.

TECHNIC OF OPERATION ON THE ANKLE JOINT

By far the best exposure of the ankle joint is given by an anterior incision which extends from one malleolus to the other, directly across the instep. I have sometimes modified this in such way as to make an anterior skin flap extending somewhat downward on the dorsum of the foot and have divided the tendons and other structures on a higher level, yet both methods seem to be efficient. The incision extends first through the skin and subcutaneous tissues, the tendons are exposed and sutures are placed well above and below the point of division in each tendon and so marked that identification will be easy when they are to be reunited. The ligaments and other surrounding tissues are now divided and the joint opened. The same careful dissection is now instituted as has been described for the knee, and every vestige of tuberculous tissue is most carefully removed. Particular attention is given to the calcaneo-astragaloid articulation, which is frequently secondarily involved and may be the primary focus of infection. Whenever the patient complains of great pain in standing and inability to walk, this joint is probably involved.

In Case 20 it became necessary to remove a practically normal astragalus in order to thoroughly expose and dissect out this joint. Attention is likewise called to the great importance of the tibiofibular articulation. This articulation must be thoroughly exposed, since it is regularly involved. When cavities are found in the astragalus, os calcis, tibia or fibula they are cut out with a sharp knife and the cavity filled with iodoform mass.

After the dissection is completed the joint is treated with pure carbolic acid and alcohol, the tourniquet is removed, vessels secured and the joint closed. The dressings are applied in two sets, one on the anterior surface, which can be removed without disturbing the foot in the cast; the other set are laid in the cast before it is applied. The splint used after this operation is a posterior strap of plaster-of-Paris, which has incorporated within it a strip of hoop iron; then several

rolls of plaster bandage are put on as an encasing splint, or an anterior strap is first applied; then the circular turns are used to hold the anterior and posterior straps in place. This joint is likewise treated by tube drainage for from five days to one week. The after-treatment of the ankle is practically the same as that of the knee. The results in this joint, as in the knee, are much more satisfactory when a mixed infection has not taken place.

TECHNIC OF OPERATION ON THE ELBOW JOINT

The elbow joint is best exposed for careful dissection of all rarifications of the synovial membrane by posterior incisions. A longitudinal incision is first made along the inner border of the olecranon, extending about two and one-half inches below and three inches above the tip of the process. A second transverse incision is then made on a level with the radiohumeral articulation and extends from the first incision to the outer border of this articulation. The longitudinal incision extends through into the joint. The transverse incision is first made through the soft parts; then with a chisel or saw the olecranon is divided on a line with the superficial incision. This gives a flap above which includes the olecranon the triceps muscle and overlying skin. This flap is retracted upward and strong flexure of the elbow causes the three bones to stand out distinctly. Careful attention must be given to the ulna nerve during this flexure, and it may be necessary to do a subperiosteal dissection beneath the nerve and lift it over the inner condyle, or to clip off the inner epicondyle before completing the flexion.

The dissection of the synovial membrane is now carefully completed in the same manner as has been described for the other joints, great care being given to the radioulnar articulation.

The joint is closed with drainage and all parts are sutured back into position. The olecranon is reunited with gut, which is used in the soft tissues only. A strap plaster splint is applied with the elbow at a right angle. The after-treatment of this joint differs in no way from that given for the knee, except that I have endeavored to get motion in this joint, and begin with gentle movements about three weeks after operation.

SUMMARY OF TWENTY-FIVE CASES

Detailed case reports can not be included in this paper, and the following summary of important points may be of interest:

There were 12 female patients and 13 males. All except one were of the working class and were dependent on their own or their parents' daily labor for support.

There was no family history of tuberculosis in 19 cases. There had been a definite injury to the joint in but 7 cases. The duration of the joint trouble ranged from five weeks to twenty-one years. In fifteen cases it had been more than one year. The general health was bad in 10, fairly good in 6, good in 9. There were tuberculous lesions elsewhere in 5 cases, 1 in lung, 1 in opposite knee, 1 in opposite ankle, 1 in Fallopian tube, 1 in spine and lung.

There were three children whose ages were 6, 7 and 15. The ages of the remaining patients varied from 18 to 40. Three were under 20. Thirteen were between 20 and 30; 6 were over 30. There were no sinuses present in 19 cases.

Some of these cases have been reported incompletely in a previous paper, but are included in the present report in order to give the conditions of the patients to-day.

Twenty-five cases are reported. Of this number 18 may be considered to justify a conclusion as to the cure of the disease. It would seem justifiable to consider a patient cured when the wound has healed and remains healed and painless for many months and when the extremity has been restored to its function for a sufficient period to justify the conclusion that it will be permanent. I realize that exceptions may be taken to such conclusion and that a much longer period may be demanded by some.

Of this number 12 are completely cured and are using the extremity without support in their ordinary duties. Two have a single persistent sinus of minor importance, but have good function. In one the result is not known, but the progress was favorable up to the time of the patient's disappearance, one year after operation. In three the extremity was amputated subsequently, but I am not convinced as to the justification for amputation in two.

In the remaining seven recent cases the wounds have healed satisfactorily, the primary result is good and a cure is confidently expected in all, but a sufficient length of time has not elapsed since operation to justify a report of final results.

In the three cases in which amputation was done two showed extensive and extreme destructions of the joint at the time of the excision, and the general condition of the patient was bad. Excision became in these cases a trial measure of conservatism. There were other cases in this list, however, in which that joint seemed to be as extensively involved, cases in which amputation had been advised, yet excision and erasion accomplished a cure.

Seven erasions or, more properly speaking, atypical erasions have been done in the knee, 7 in the ankle, 3 in the elbow, and 1 in the wrist.

No flexures have developed and useful motion has been developed in three knees and two elbows. The motion is perfect in one elbow. The motion in other cases is slight, varying from 10 to 25 degrees, but is much prized by these patients. The endurance in the recovered cases seems good.

In one case a secondary operation was necessary, and in two I have cured a persistent sinus by local applications and without the use of a general anesthetic. I do not know what might have been indicated in the cases of amputation.

There have been no deaths from operation. No patient has developed tuberculosis elsewhere by metastasis. Patient 5 showed some pulmonary symptoms for a time within a year after her operation, but they were never clearly tuberculous and I believe that from the facts that they disappeared promptly and that the girl has remained in perfect health, we may safely assume that they were not. Patient 1 had the physical signs of tuberculosis at the time of her operation, but these signs disappeared and she has been in excellent health for almost four years since operation. Patient 16, whose ankle was amputated subsequently to the original operation, suffered from tuberculosis elsewhere at the time of her operation and died of tuberculosis of the bowel. This patient was in wretched health as a result of generalized tuberculosis and the bowel condition developed more than one year after operation.

The operative method of treatment has been recommended and adopted in these cases for a variety of

reasons. In many it has been adopted after a careful application of the accepted non-operative methods of treatment. In Case 7 the patient has been under treatment by competent men for eight years, yet she came to me on crutches. In this case I found such marked evidence of pelvic tuberculosis that I first operated on the abdomen and removed a tuberculous right Fallopian tube. I then used immobilization and Bier's congestive hyperemia on the knee for a period of almost six months without the slightest improvement. At the time of operation the inner one-half of the joint showed an active fungous tuberculosis. The outer half showed well-advanced healing within the joint, but the outer portion of the tibia immediately beneath the healed portion of the joint showed an active bone focus the size of the last phalanx of my index finger. Again in Cases 18 and 19 under long continued hygienic conditions the joints grew worse or failed to improve.

In other cases operative treatment has been recommended because of the seriously destructive nature of the lesion at the time the patient came for treatment.

In the third group of cases the social position of the patients demanded an early restoration to a wage-earning capacity and after a thorough explanation of the situation the patient has selected the operative course.

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PHOSPHORUS COMPOUNDS AS BRAIN FOODS *

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Our knowledge of the nutritional requirements of the nervous system may be said to be very incomplete. As it is probable that the efficiency of any tissue as a working machine is largely dependent on a proper state of nutrition, it may be of interest to review critically, in the light of recent work, some of the suggestions that have been put forward with regard to the nervous system. Two general methods of procedure may be observed, the one depending purely on stimulants, such as caffein, strychnin, cocain, alcohol and similar substances; the other using as its basis the supply of such substances as the nervous system is supposed to use in its function, namely, phosphorus in different combinations; the one attempting to stimulate the nervous system to activity, the other to increase its efficiency by giving it the proper food.

We all naturally wish to have our nervous systems in the best of condition at all times, and the correct knowledge of how to accomplish this will add greatly to our efficiency. The difficulty of obtaining accurate knowledge on this point makes it appear likely that this field may pass into the hands of the psychologists altogether. No one will deny that the development of proper habits[1] will add greatly to our efficiency as workers and that to cultivate habits of day-dreaming is bad and probably can not be cured by the administration of phosphorus in any convenient form. At the same time a normal healthy person with a nervous system in a good state of nutrition is very apt to be an efficient working machine. When such a machine becomes fatigued as the result of use the question arises whether it needs stimulation or food. Our present knowledge does not permit us to give an answer to this question. We do know, however, that those stimulants which we at present use have a deleterious effect when taken in excess, but there may be other stimulants normally manufactured in the body which are not open to that objection. We are just beginning to acquire some knowledge as to the extent to which the tissues of the body are dependent on one another for their activity.

The work carried on in this laboratory on chemistry of the nervous system has so far not taken up the first point, but has followed the question of the nutrition of the brain during growth and as the result of mental disease. A brief statement of the bearing which the results so far obtained have on our present-day ideas may be of interest.

The idea of the relation of mental activity to phosphorus is old, and as far back as 1869 there appeared an article by L. H. Wood[2] on the influence of mental activity on the excretion of phosphoric acid. Now it is apparent to any one that a tissue which represents only about 2 per cent. of the total body weight can not possibly influence to a considerable extent the composition of a fluid which derives its material from all the other tissues of the body, unless such a tissue is very much richer in phosphorus than in the other tissues or has a much more active metabolism. That such is not the case, in spite of popular notions to the contrary, is well illustrated by Table 1.

TABLE 1.—PERCENTAGE OF PHOSPHORUS IN BODY TISSUES

	Total Phosphorus.	
	Per Cent. in Dry Fat Free Tissue.	In Moist Tissue.
Muscle	0.90-1.50	0.22-0.38
Liver	1.34-1.60	0.34-0.40
Kidney	1.34	0.42
Pancreas	1.70	0.40
Brain	1.44-1.50	0.33-0.35

From Table 1 it is evident that the brain has by no means an unusual amount of phosphorus in comparison to the other tissues. As the above figures apply to the normal brain the question arises whether it may not be necessary sometimes to supply the brain with phosphorus when its total store has become decreased. Before answering this, let us see if there are any special forms of phosphorus compounds in which the brain is especially rich and of which, reasoning teleologically, it would therefore be in greater need. The figures in Table 2 do, indeed, lend some support to such a notion.

TABLE 2.—PERCENTAGE OF LECITHIN IN BODY TISSUES

	Percentage of Lecithin.	
Tissue.	In Dry Matter.	Total Phosphorus.
Pancreas	5.0	12.
Muscle	5.0	15.
Kidney	8.0	25.
Liver	10.0	26.
Brain	27.0	73.

The brain, both relatively and absolutely, is richer in lecithin than are the other tissues. The adrenal, which is not given in this table, comes nearest with 12 per cent. of lecithin. The term "lecithin" is here used collectively and designates a group of phosphorized fats with the properties of colloids now coming to be grouped under the more general term "phosphatids."

In studying the brain, therefore, in conditions of exhaustion it is necessary to determine not only its total but also its lecithin phosphorus content. Also on ac-

* From the Laboratory of Bio-Chemistry and Pharmacology, University of Chicago.

1. James: Psychology: chapter on Habit.

2. Proc. Conn. Med. Soc., 1869. Reprint kindly loaned by Dr. L. B. Mendel.

count of the relative crudity of chemical methods it becomes necessary to study the brain under very extreme conditions of exhaustion in order to insure the greatest chance of discovering differences. With regard to the daily requirements we know very little, but all indications go to show that the metabolic activity of the brain is not great.

Two mental diseases are known which represent the extreme stage of exhaustion at which the nervous system may arrive:

1. General paralysis of the insane, in which a frequent cause of death is sheer exhaustion supervening on a large number of seizures. In this disease we also have an actual destruction of nerve tissue that can be demonstrated anatomically.

2. Dementia præcox, which in its severe or hebephrenic type also runs a fairly rapid course, so that we very often find that a comparatively intelligent young man will in a few years come to a state in which he loses all initiative and sits day-dreaming, dribbling saliva for days and weeks without the mental energy to make the least effort. In this disease no very large amount of actual destruction of nerve tissue can be demonstrated anatomically.

In the following table two normal brains are compared with brains from a case of each one of these two diseases, picked out from a large list:

TABLE 3.—COMPOSITION OF BRAIN TISSUE IN NORMAL AND DISEASED BRAINS

	Normal. Age 16.	Dementia Præcox. Age 17.	Normal. Age 43.	General Paralysis. Age 44.
Proteins	37.1	39.0	38.0	39.1
Lipoids	52.0	51.6	52.0	50.8
Extractives and Ash	10.9	9.4	10.0	10.1
Total Phosphorus	1.50	1.47	1.50	1.44
Lecithins	27.3	27.8	27.0	24.8

There is practically no difference between the lecithin content of the brain in dementia præcox and that in health, while in general paralysis there is a slight decrease in total phosphorus and a larger one in lecithin phosphorus. Even the latter, however, is nothing like what one would expect, considering the severity of the disease; indeed, not all cases of general paralysis show as much change. The actual amount of lecithin lost is not indicated in the above figures, which are relative; but on account of the inability of the central nervous system to regenerate, this could not be replaced in any case. We come, therefore, to the rather surprising conclusion that even in extreme states of exhaustion the brain is plentifully supplied, not only with phosphorus, but also with its special form of phosphorus, namely, lecithin. Such results as these might indicate that chemical methods are not capable of detecting differences of physiologic significance and consequently are to be discredited. That such is not the case I shall have occasion to demonstrate in reporting a case of dementia præcox in a subsequent article, in which very marked chemical differences of another kind, which distinguished this subject from the normal, will be described. Furthermore, that those methods are capable of detecting differences when such differences exist is well illustrated in Table 4, where the brains at different ages are compared.

Table 4 indicates that the brain does change in composition as well as weight until adolescence; after that, however, the variation is within analytical errors. For its growth the brain requires, therefore, among other things, about 42 grams of protein, 135 grams of lipoids,

TABLE 4.—VARIATION OF THE BRAIN DURING GROWTH

Case:	At Birth. No. 13.*		Sixteen Years. No. 20.*		Forty Years. No. 70.*	
Wt. of Brain:	640 Grams.		1,440 Grams.		1,400 Grams.	
	%	Grams.	%	Grams.	%	Grams.
Solids	11.2	71.68	21.2	305.28	23.0	322.0
Proteins	46.6	33.40	37.1	113.26	38.0	122.36
Lipoids	33.1	23.72	52.0	158.74	52.0	167.44
Extractives and Ash	20.3	14.56	10.9	33.27	10.0	32.20
Total P.	1.72	1.23	1.50	4.58	1.50	4.83
Lecithins	24.2	17.3	27.3	83.3	27.0	86.9

*The subject in Case 13 died at birth. In Case 20 the subject was a boy employed in hotel. In Case 70 the subject was a physician.

of which 66 grams are lecithin and 3.35 grams phosphorus. This, of course, takes into consideration only that which is actually built up into tissues. Much more is really used. The attempts to supply this demand have led to the introduction into practice of a number of commercial preparations, some of which I will review:

1. Hypophosphites: Calcium hypophosphite, N. F., p. 24: Dose 0.5 gm.; three doses per day (1.5 gm.) would represent at a maximum 0.5 gm. of phosphorus a day. Folin gives the daily phosphorus output at about 1.5 to 2 gm. So at best this would only represent an addition of 33 per cent.

2. Elixir glycerophosphatum, N. F., p. 44: Dose 4 c.c.; three doses per day (12 c.c.) would represent at a maximum .05 gm. of phosphorus a day, an addition of 3 per cent.

3. An organic phosphoric acid combination has recently been obtained from the bran of wheat and a number of vegetable substances. It is not yet very generally used. Mendel[3] has shown that this substance when taken by the stomach is completely converted into phosphate and excreted as such in the urine shortly after ingestion.

4. Lecithin: On account of its presence in large quantities in brain tissue this might be the most rational substance to use, provided it could be demonstrated that it reaches the brain. On account of its cost the dose of this substance when recommended commercially is quite small, from 0.1 to 0.3 gram. We ingest daily with our food about 5 grams of lecithin, which by the addition of two eggs can easily be raised to 10 grams.

A number of other compounds and combinations have been recommended, and there will no doubt be an addition to the list as new phosphorus compounds are discovered. The significant thing about all these substances is that they represent, with one exception, an insignificant addition to the daily phosphorus diet. If we wished to overfeed a person on nitrogen we would at least double his daily consumption and not be satisfied with an addition of 33 per cent. as a maximum. The recent work of Hart[4] is also significant as showing that even in extreme phosphorus starvation the tissues will keep their supply of phosphorus constant at the expense of the bones.

We may summarize the results of these experiments in the following conclusion:

1. There is no evidence of any need to supply phosphorus to the brain in conditions of exhaustion, as a lack of that element has not yet been demonstrated. The actual amount lost in the exhaustion of general paralysis can not, of course, be replaced on account of

3. Am. Jour. Physiol., 1906, xvii, 75.
4. Am. Jour. Physiol., 1908, xxiii, 246.

the inability of the central nervous system to regenerate.

2. The phosphorus required for the growth of the brain is amply supplied by the phosphorus of our daily diet. If desired, the addition of phosphorus-rich foods, such as eggs, sweetbreads (pancreas), liver, and some meats, can be made to meet further requirements, and will far exceed in amount the phosphorus obtained in less natural form from the prescribed doses of any of the various drugs in commercial use. The use of such foods is, however, limited by their richness and their tendency, on account of their rich fat content, to interfere with gastric digestion.

3. As far as the nervous system is concerned, the addition to the diet of commercial phosphorus compounds, such as hypophosphites, glycerophosphate, phytin, lecithin, etc., is to be discouraged because, in the first place, there is no conclusive evidence that they have any effect on the growth of the brain, and, second, the amount usually recommended means only a very insignificant addition to the amount of phosphorus (even in its special forms such as lecithin) taken with the daily food.

RELATION OF ANOMALOUS RENAL BLOOD VESSELS TO HYDRONEPHROSIS

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SURGICAL CONSIDERATIONS

My attention was first called to the relation existing between anomalous blood vessels and intermittent hydronephrosis some six years ago, while I was exploring the pelvis of a kidney which was bound down by adhesions producing a kink in the ureter. The ureter was separated just at the pelvis of the kidney, and all the tissues concerned outside of the ureter were divided without previously catching them in forceps. The result was a very smart hemorrhage which was difficult to control because the artery in this case, one of two, came directly from the aorta. The vessel was about the size of the radial. After this, in operating for such conditions, the ureter was separated and any tissue present was carefully inspected before division.

It is a significant fact that in twenty out of the twenty-seven cases of hydronephrosis herewith reported anomalous blood vessels were present, and the obstruction in each instance was at a point where these vessels crossed the ureteropelvic juncture. The vessels passed to the lower pole of the kidney a little to one side of the midline, and varied from the size of a knitting needle to that of the radial. In all but two the arteries came from the renal, sometimes passing in front and sometimes behind the ureter, but in either of these positions the pressure of the artery on the ureter or adhesions between the vessels and pelvis seemed quite capable of developing the kink. In a few of the cases adhesions between these vessels and the margins of the pelvis were responsible for the obstruction.

I have no doubt that many patients have been operated on without recognition of the rôle played by such anomalous blood vessels and that these vessels were separated, tied and divided by the operator without his attention being called to the exact condition.

Admitting the possibility of error as to the actual nature of the obstruction, or that we have in some instances overestimated the importance of the vascular anomaly, there is no getting away from the fact that such blood vessels were present and abnormal. In nearly every case it was possible to prove absolutely the etiologic relationship of the blood vessel to the kink.

In our series no patient was accepted for operation in whom the kidney pelvis did not easily contain 50 c.c. or more of fluid, and in the greater number of them the pelvis had a capacity of from 60 to 180 c.c. or more.

The kidney was exposed by an oblique incision parallel with the quadratus lumborum muscle, extending high up into the costovertebral angle, avoiding the ilioinguinal and the iliohypogastric nerves. If necessary, the twelfth rib was divided behind the erector spinæ muscle. In doing this the pleura was sometimes opened, but such accidental pleurotomy, in which the lung was easily seen, did not result in pneumothorax or any other ill effects, if the patient was lying face downward during operation.

The kidney was drawn well out on the loin and the ureter isolated next to the pelvis from the posterior side. Careful dissection revealed the blood vessels, if they were present. In 12 of the 27 cases it was considered wise to enlarge the ureteropelvic juncture by a plastic operation in addition to the division of the blood vessels which were present in 7 of the 12. In 9 the operation was that proposed and carried out by the late Christian Fenger, whose early description of valve formation of the pelvis of the kidney is classical.

We found that the easiest way to accomplish this procedure was to open the dilated pelvis half an inch above the ureter, passing a grooved director down into it. The strictured portion was then split for three-fourths of an inch in length, half on the ureter and half in the pelvis, and closed by plastic suturing with No. 1 catgut through all the coats after the plan of the Heinke-Mikulicz interrupted sutures pyloroplasty. Such fat and fascia as lies in the neighborhood connected with the pelvis was raised as a plastic flap, planted across the line of union and held in place by a few catgut sutures.

After the uteropelvic sutures had been placed the union sometimes looked unreliable, as though leakage might occur, but in our experience if the suture line was properly covered with this fatty fascial flap there has been no leakage. Before using this latter device, in two cases following operations, there was leakage of urine. One leaked for ten days, and a second, a large infected hydronephrosis, for seven weeks, but with spontaneous healing in each instance.

In three of the patients with very large hydronephrotic sacs, the ureter was completely detached, its end split for half an inch like a cuff, and then reimplanted into an opening made in the lateral wall of the pelvis, using the two-row interrupted suture method with No. 1 catgut, much like gastrojejunostomy. This was covered with the fatty fascial flap previously described. Primary union took place in all three.

After the plastic operation the kidney was anchored in such position as to keep the site of union without tension or bending. Folds of rubber tissue were used for drainage, never gauze.

In two large infected hydronephroses the remnant of the kidney was removed with the sac.

CLINICAL CONSIDERATIONS OF INTERMITTENT HYDRONEPHROSIS CAUSED BY ANOMALOUS RENAL BLOOD VESSELS

W. F. BRAASCH, M. D.

Cases of hydronephrosis are usually grouped under two anatomic headings: congenital and acquired.

CONGENITAL HYDRONEPHROSIS

In the light of recent investigation the number of cases in the congenital class has become much larger than that of cases in the acquired. The etiologic congenital conditions commonly observed are (1) anomalous renal blood vessels; (2) atresia of the ureter near the renopelvic juncture, and (3) displaced kidneys.

ACQUIRED HYDRONEPHROSIS

The non-congenital conditions which may be found in the urinary tract causing renopelvic distention are (1) strictures following inflammatory and traumatic lesions, (2) stones partially occluding the tract, (3) tumors within the urinary tract or exerting extraneous pressure on it. Thus it will be seen that there is a large number of causes for and conditions in which hydronephrosis in the broad sense of the term may be found.

These various etiologic factors have been observed, however, to a great extent at postmortem examination. The observations at autopsy differ quite widely from clinical and surgical reports. Morris quotes the Middlesex Hospital Reports to the effect that almost 90 per cent. of the cases of hydronephrosis found at autopsy were due to extraneous pressure of abdominal tumors. On the other hand, Israel reports but one of his series of forty cases in which operation was performed for hydronephrosis as due to extraneous tumor pressure.

On reviewing the list of operations for hydronephrosis performed by Drs. W. J. and C. H. Mayo at St. Mary's Hospital, one is impressed with the number of cases in which anomalous blood vessels were found to be the only visible cause of renopelvic distention.

Of the 27 cases of definite hydronephrosis collected from the operation records, 20 were due to such blood vessels. To prove that these blood vessels were the cause of the hydronephrosis it was shown that in 13 of these 20 cases, severing the anomalous vessels sufficed to remedy the condition.

It is only within the last few years that our attention has been called clinically to the comparatively frequent existence of hydronephrosis. Patients frequently appear complaining of intermittent attacks of pain in the upper lateral abdomen the causes of which have remained unidentified for years. The condition has been regarded variously as a diseased condition of the appendix, gallbladder, pelvic organs, or as a renal or ureteral lithiasis. With these various diagnoses surgeons have repeatedly opened the abdomen only to find a hydronephrotic kidney, or to overlook the underlying condition entirely. The patient frequently appears with the appendix removed, but with no cessation of symptoms. While it is often difficult to distinguish intermittent hydronephrosis clinically from some diseases of the neighboring organs, nevertheless the condition presents certain clinical data which are very suggestive.

DIAGNOSTIC DATA—SUBJECTIVE

Age.—The symptoms usually manifest themselves in the young adult at about the time when the body has reached its fullest growth, a fact which is strongly suggestive of congenital etiology. The average age at which the symptoms commenced was 22 years. Most of the patients, however, had had their trouble a number of years, ranging from one to twenty.

Attacks.— Intermittent hydronephrosis manifests itself by attacks of acute abdominal pain. The frequency of attack is variable, appearing at intervals of a week or two to years, although the usual interval is a month or two. In several instances patients with long-standing trouble complained of a steady ache continuing between the acute attacks. The onset is usually sudden, although some patients give a history of premonitory ache in the affected side. The attacks frequently come on toward evening, and often after some unusual exertion. In twelve cases the right side was affected, and in eight the left side. There is no evident reason why one side should be oftener affected than the other All the patients except three referred the pain to the upper abdominal quadrant and to the back near the costovertebral angle. In nine of the cases the pain was referred to the lower quadrant as well, and in one case to the lower quadrant alone. As a rule the pain is not referred along the course of the ureter as distinctly as in a kidney or ureteral stone, but remains localized. It is usually acute for hours, and a soreness in the affected side may continue during a day or two following the attack. The pain is not, as a rule, as acute as in that attending gallstone and kidney-stone colic. Again, the pain may be absent in the affected side, the condition remaining latent until the retention becomes so great that the patient notices a tumor in the abdomen. The non-affected side may also be the seat of some pain, which is usually due to the engorgement of the normal kidney as the result of a compensatory hypertrophy, although the possibility of a bilateral hydronephrosis is always to be considered.

In women, as a rule, the attacks appear independent of menstruation; in fact, if the patient states that they usually come on at the menstrual period one might suspect either pelvic trouble or neurosis.

Gastric Symptoms.—Gastric disturbance is frequently quite prominent, vomiting or nausea accompanying the attacks in nearly every case; in fact, one patient complained only of stomach symptoms, but with closer investigation it was discovered that he also had pain referred to the lateral abdomen accompanying his gastric disturbance.

DIAGNOSTIC DATA—OBJECTIVE

In many cases of intermittent hydronephrosis the objective symptoms are of little value. Where there is more or less permanent distention of the sac, however, the tumor may be palpable in the upper abdominal quadrant and kidney zone. This is so in about a third of our cases. The mass has a distinct cystic soft feel, and with one hand on the back may be palpable through the abdomen with gentle pressure. In several instances the tumor was quite easily palpable one day and the next could be scarcely felt, the variation in the size of the sac being, of course, dependent on the degree of obstruction to urinary drainage. If the tumor is palpable as a cystic mass, occupying more or less of the upper abdominal quadrant, it will probably have but little secreting substance left.

Slight tenderness on pressure over the kidney area was complained of by a few of the patients, in marked distinction to the tenderness of an inflamed appendix. Marked renal dystopia and scoliosis was not noticed in

the series of cases; in fact, no pronounced congenital anomalies were noted in any case excepting one in which the kidney was found to have two distinct pelves and ureters. One pelvis was hydronephrotic and the other was normal.

X-Ray Examination.—*X*-ray examination in itself is of no value in diagnosis unless the kidney shadow can be made definite enough to bring out the outline of the kidney. It can be employed to some advantage, if there is any doubt after the cystoscopic examination, by combining the two methods.

Argyrol and bismuth solutions have been injected into the pelvis and radiographs made to demonstrate the size of the pelvis. The ureteral catheter may likewise be radiographed as it lies coiled in the dilated pelvis. The data acquired from pelvic distention as described below, however, are much simpler.

DIFFERENTIAL DIAGNOSIS

1. *Appendicitis.*—Strange as it may seem, the condition with which intermittent hydronephrosis is most frequently confounded is appendicitis. About one-fourth of the patients in our series had their appendices removed previously. Many others had been told that their symptoms were due to appendicitis and were advised to have the appendix removed. Hydronephrosis is differentiated by (1) location of pain, which is higher up and is referred usually to the costovertebral angle, (2) intermittence of attacks, (3) absence of fever and prolonged prostration, (4) absence of marked tenderness over the appendix, (5) presence of pus in the urine, and (6) cystoscopic findings.

2. *Gallstones.*—The confusion of this condition with hydronephrosis is possible if the pains are localized below the right costal margin and if accompanied by gastric symptoms. Gallstones may usually be differentiated by (1) the fact that the pain is referred more to the pit of the stomach, radiating thence to the back, (2) the more irregular periodicity of attack, (3) the fact that this is more pronounced with constant nausea and vomiting, (4) the fact that the attack, as a rule, is more acute, (5) the more rapid onset and disappearance of pain, and (6) icterus. If the symptoms of gallstones are doubtful and the pains are referred below, however, it is advisable to examine the urine carefully for pus and to measure the size of the renal pelvis.

3. *Nephrolithiasis.*—Hydronephrosis and renal calculi will frequently be manifested by similar symptoms. The location and character of the pain, intermittence of attack and accompanying gastric symptoms may all be similar. The history in cases of calculus does not, as a rule, however, extend over so long a period of time, nor is there such frequent occurrence as with hydronephrosis. Furthermore, lithiasis is to be differentiated by the facts that (1) the symptoms are usually more severe, (2) there is a history of blood in urine, (3) the microscopic urine examination usually shows a few blood cells. After all, the radiograph is the essential method of diagnosis of lithiasis, and when checked by the ureteral catheter is about infallible.

Pancreatic and ovarian cysts may, in exceptional cases, be confused with a latent symptomless hydronephrosis, since a large hydronephrosis may extend to the center of the abdomen, and a pancreatic cyst may, on examination, give a similar "through-and-through" feel. The clinical symptoms, as a rule, suffice to differentiate the conditions, while the reno-pelvic distention establishes the diagnosis.

URINARY DATA

1 *Subjective Urinary Data.*—These are of comparatively little value, as but few of the patients complain of even the slightest bladder irritation. In several cases it was possible to obtain a history of diminution in amount of urine just preceding and during the attack with a polyuria following. The polyuria is probably due more to the reflex inhibition of secretion in the unaffected kidney rather than to occlusion of the contents of the hydronephrotic sac and its consequent liberation. In one case a large hydronephrotic sac was distinctly palpable, which on pressure would decrease in size and the patient would immediately urinate a quantity of fluid of low specific gravity containing pus cells. Gross blood was not reported in any of the series of cases.

2. *Microscopic Examination of Urine.*—The urine is not usually distinctly purulent on macroscopic examination. Microscopic examination will, however, reveal pus cells in the urine, though it may require repeated examinations to demonstrate their presence. The number of pus cells varies continually; they may even be absent for a period depending to a great extent on the drainage. Their presence is of much more importance than that of casts, of which there are usually but a few present. Blood cells are not often found, although in three cases a few were present. In several cases no pus cells were found in the mixed urine, whereas in the specimen obtained by ureteral catheterization the urine of the affected kidney showed a considerable number of pus cells.

3. *Phloridzin Test.*—An attempt was made in five cases of hydronephrosis to ascertain the functional capacity of the two kidneys by means of the phloridzin test. In every case the sugar remained absent from the urine in both kidneys for an hour after injection—a peculiarity of secretion in cases of hydronephrosis in which Albarran was first to call attention.

4. *Cystoscopic Examination.*—In some cases intermittent hydronephrosis can be diagnosed with comparative certainty from the clinical picture, particularly if the kidney tumor is distinctly palpable. Nevertheless, since renopelvic distention is frequently not definitely palpable, and since the symptoms simulate those of various renal conditions, a more exact method of diagnosis should be employed. This is given us in cystoscopic examination, including ureteral catheterization and measurement of the size of the renal pelvis.

The bladder mucosa is usually normal in appearance unless some local cystitis should incidentally complicate it. The ureteral meatus next attracts our attention. In about half of our cases it was found long and more or less pendulous. The ureteral peristaltic contraction about the meatus is usually indistinct and the urine dribbles or comes with an occasional weak spurt. The whole is suggestive of lack of tone, in contradistinction to the hyperirritable meatus one frequently sees with a stone in the lower ureter. Still, too much stress should not be laid on meatoscopy, for its findings are often misleading.

A catheter is next slipped into the ureter and slowly passed up toward the renal pelvis. In about two-thirds of the cases more or less obstruction was encountered near the ureteropelvic juncture. With but one exception it was possible to slip the ureteral catheter by the obstruction and enter the renal pelvis. Although it is impossible definitely to differentiate the character of the obstruction caused by the stone from that of constrict-

ing anomalous blood vessels, still the former obstruction is abrupt, and a grafting may be palpable, while the latter, which is smooth, may give way on a little pressure.

Whereas in the normal ureter and pelvis the ureteral catheter can be inserted to a length of from 30 to 40 cm., the dilated pelvis will permit 50 cm. or more to be coiled up within itself. The only exception to this was noted in a case in which the obstruction of ureteropelvic juncture was so great that a catheter could not be passed by it. The obstruction is usually felt at a length of from 20 to 25 cm. of catheter, however, and is easily pushed by. Below the obstruction it will frequently happen that little or no urine will come through the catheter. As soon as the obstruction is passed the urine will usually run freely with a steady drip and without the ureteral contraction. An ounce or so of fluid will frequently drop away without peristaltic hesitation. A similar rapid secretion is, however, sometimes observed with the nervous hypersecretion of oversensitive individuals, in whose cases the urine may flow incessantly for a long time without any ureteral contraction. The urine thus collected is extremely pale and will, in most cases, show at least a slight turbidity on close inspection. Such turbidity may be due to pus, but in some cases it is due to phosphates which frequently are precipitated in the more or less alkaline residual urine. The urine so-called may appear clear on inspection, and yet there may be enough pus cells in it to determine an infected condition. Therefore, a microscopic examination is necessary in every case. After collecting sufficient urine for examination and letting enough urine run out to empty the hydronephrotic sac, at least partially, the next step is to determine the degree of pelvic dilatation.

Pelvic Distention.—Kelly first called attention in this country to the fact that if the pelvis of the kidney is overdistended an artificial renal colic is produced. This fact is taken advantage of to measure the size of the renal pelvis. The normal pelvis will hold from 5 to 15 c.c. before pain is caused. At times the otherwise normal pelvis will be distended to 30 or even 40 c.c. before the patient complains of any definite pain. This occurs usually in more or less hysterical subjects and may possibly be explained by an hysterical anesthesia similar to that observed in the cornea or pharynx. After the pelvis has been partially drained one should be able to inject at least 50 c.c. of fluid into the renal pelvis before pain is caused, to determine an abnormal dilatation.

The distending fluid is colored with methylene blue to determine whether there is any return flow alongside the catheter. This return flow is, as a rule, not present to any noticeable extent, but if markedly so will negate the value of the findings.

After the degree of dilatation has been determined, the injected fluid is allowed to drain partially through the catheter. It escapes with a steady flow resembling that of a syphon and without any expulsive force. The amount of fluid injected before pain is produced varies, of course, with the degree of renal dilatation. In several cases 200 c.c. were injected without causing pain. If more than 150 c.c. can be injected but little secreting substance remains in the affected kidney.

The typical cystoscopic findings in hydronephrosis would consist of (1) an occasional weak spurt of urine from the pendant meatus, (2) a slight obstruction to the catheter near the ureteropelvic juncture, (3) about 50 cm. of catheter inserted into the ureter and pelvis, (4) a rapid drainage through the catheter of a pale urine containing a variable amount of pus, (5) at least 40 c.c. of fluid injected without return flow before producing renal colic.

SUMMARY

The frequency with which a type of renopelvic distention is observed, caused by anomalous blood vessels constricting the upper ureter and characterized by intermittent attacks of abdominal pain, is so marked that the condition deserves to be considered as clinically distinct at least, if not anatomically so. The diagnostic data are:

1. Appearance of symptoms in the young adult.
2. Intermittent attacks of abdominal pain referred to the kidney zone and occurring with more or less regularity during a number of years.
3. Cystic tumor palpable in about a third of cases.
4. Presence of small amounts of pus in urine.
5. Usual absence of hemorrhagic urine, temperature and bladder irritability.
6. Cystoscopic findings as outlined above.

RELATION OF ANOMALOUS RENAL BLOOD VESSELS TO HYDRONEPHROSIS

WILLIAM CARPENTER MAC CARTY, M.D.

For many years both extensive and mild grades of hydronephrosis have been observed at autopsy, and extensive grades have been seen at operation. These latter observations, however, were usually made in cases in which the original pathologic condition has been marked by further changes, such as adhesions, distention of the pelvis and kidney. In many of them it was impossible to determine the exact etiology.

Since the early experience of Dr. Mayo in encountering a severe hemorrhage during separation of adhesions, which may or may not have been the sole factor in the production of the hydronephrosis, our attention has been drawn to the vessels which he so frequently encountered extending from the aorta or renal vessels to the lower pole of the kidney.

These observations led to a careful study of the relation of the vessels to the obstruction in the ureter.

Irregularities of the renal arteries are encountered in about 25 per cent. of dissected bodies (Quain). Of these Quain states that branches of the renal artery, or an accessory artery, instead of entering at the hilus, sometimes reach and penetrate the gland near its upper or lower end, or on its anterior surface.

Such anomalies we have found also at operation, but associated with distention of the kidney pelvis which had been previously diagnosed by artificial distention

In some cases it is impossible to determine whether the anomalous vessel was from the aorta itself or from the renal on account of the limited field of operation.

During the last year in four of the cases described by Drs. Mayo and Braasch, I made sketches during operation. In these cases the vessel ran anteriorly to the ureter and entered the lower pole (see illustration). In about 75 per cent. of all of our cases this was true.

Merkel describes early cases of hydronephrosis at autopsy in which the vessels were also posterior to the ureter.

Ekehorn, in twenty-five cases of hydronephrosis, found the accessory vessels anterior to the ureter in 64 per cent. and posterior in 28 per cent.

The pathologic sequence in cases of hydronephrosis associated with anomalous vessels seems to be dependent on some other factor than the anomalous vessel—that is

to say, anomalous vessels in the kidney occur in a larger percentage of normal kidneys than in kidneys showing hydronephrosis.

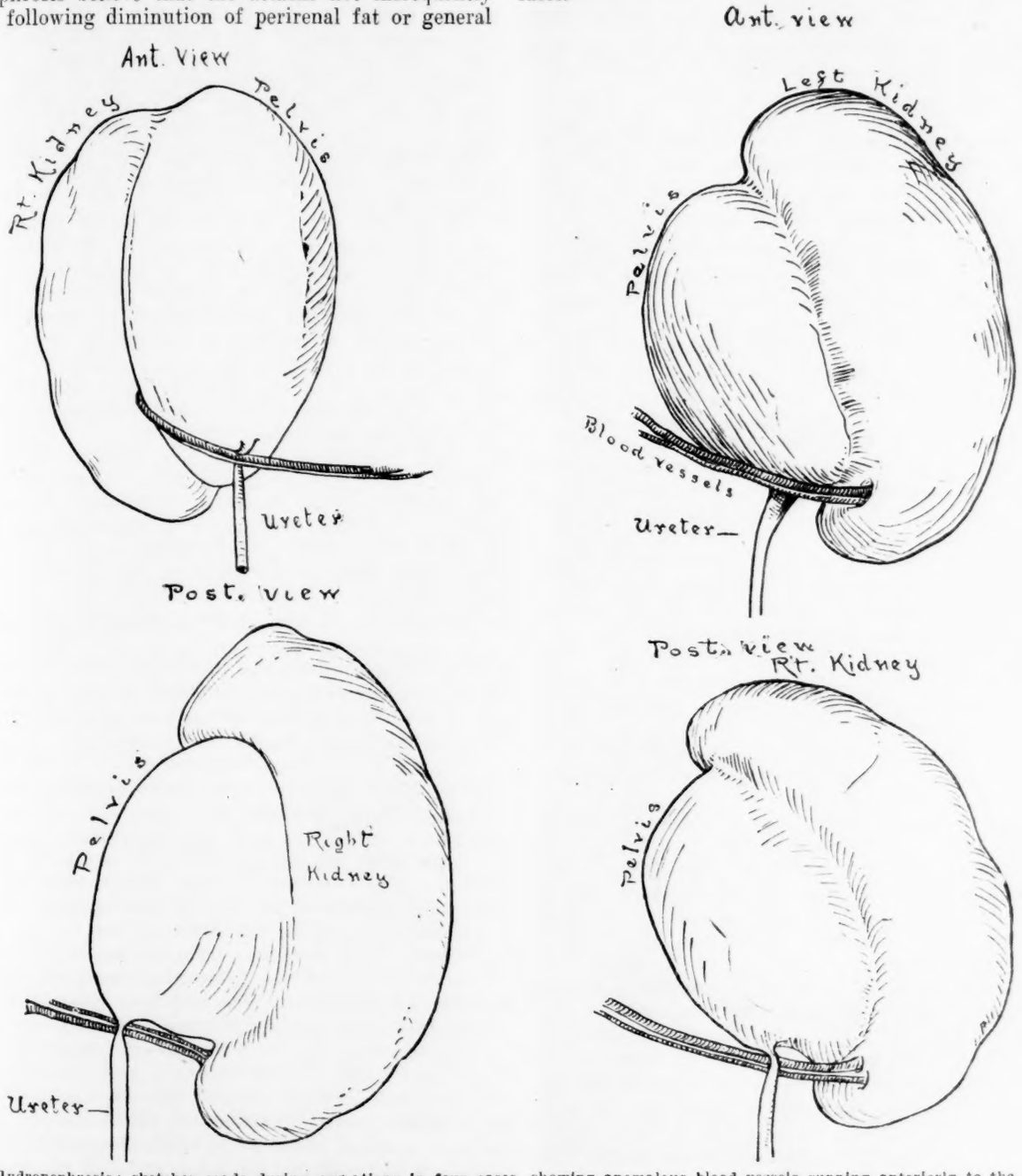
There is some reason for the sagging of the kidney, thus allowing the ureter to come in contact with the vessel, which normally is usually not in contact with the ureteropelvic juncture.

Most of those who have studied the condition of hydronephrosis believe that the attacks not infrequently occur following diminution of perirenal fat or general laxity of the abdominal organs after pregnancy or illness.

We do not know how much this factor is responsible for hydronephrosis, but the fact remains that the anomalous vessels form a suspension bridge over which the ureter hangs. Whether the point of contact of the ureter with the vessel is at the normal ureteropelvic juncture is difficult, perhaps impossible, to say.

At the point of suspension the ureter is bent on itself, thus forming a kink. As the angulation of the bend becomes more acute the inner wall of the approximating sides of the ureter form a valve, the *Klappenmechanismus* of the German.

Around the vessels and ureter adhesions are usually found. These are not marked and do not obscure the relation of vessels to the formation of the kink in mild cases.



Hydronephrosis; sketches made during operations in four cases, showing anomalous blood vessels running anteriorly to the ureter and entering the lower pole of the kidney.

Not all pathologists and surgeons believe that a vessel ventrally placed in relation to the ureter can cause hydronephrosis, but all agree that a vessel dorsally to the ureter may cause such a condition.

The facts remain, however, that mild grades of intermittent hydronephrosis clinically occur, and at operation show distention of the pelvis, a kink in the ureter, an anomalous blood vessel anterior or posterior at the

point of kinking, extending from the renal vessel or aorta to the lower pole of the kidney. After ligation and section of the vessel the cases do not show any tendency to recurrence of the condition.

NOTE.—The following references may be found of interest on this subject:

1. Fenger: Konservative Operation für renale Retention infolge von Stricturen oder Klappenbildung am Ureter, Arch. f. klin. Chir. (Langenbeck's), 1900, lxii, 528.
2. Ekehorn: Die anomalen Nierengefässe können eine entscheidende Bedeutung für die Entstehung der Hydronephrose haben. Arch. f. klin. Chir. (Langenbeck's), 1907, lxxxii, 955.
3. Merkel: Die Hydronephrose und ihre Beziehung zu akzessorischen Nierengefässen, Virchow's Arch. f. Path. Anat., 1908, excl, 534.

ANKYLOSTOMIASIS IN MEXICO AND ITS DIAGNOSIS

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Before the war with Spain ankylostomiasis was a disease almost unknown to American physicians, although in the literature of the South reports of "dirt-eating," accompanied by a severe anemia, can be traced as far back as 1808. The war brought the responsibility of making Cuba, Porto Rico and the Philippines habitable, and the fascinating new science of tropical medicine came to the fore in this country. The sanitation of the Canal Zone and the banishment of yellow fever from Havana has called the attention of the world at large to this subject and to the men who have accomplished so much in so short a time. The great work of Stiles, with the identification of the *Uncinaria Americana* and demonstration of its prevalence in the Southern States, and the investigations of Herbert Gunn and others in California, which show that almost all the common tropical diseases can be studied in San Francisco, gave a great impetus to the study of these diseases. American physicians now realize that they must more frequently examine the stools of patients and inquire for a history of residence in the tropics. Sir Patrick Manson, on his visit to California four years ago, urged the need of special schools for tropical medicine in this country.

Granting, then, the importance of this subject in the United States, it may be of interest to the physicians of California, Arizona, New Mexico and Texas, especially, to know that across the border there are endemic foci of ankylostomiasis; also that as soon as the Mexicans learn a little English they desire to get across the line to higher wages.

Besides a few isolated reports of this disease seen in natives of Mexico I can find only one paper[1] on this subject in English, that by Dr. Ricardo E. Manuell, who has been carrying on a campaign of instruction in this subject since his discovery of the disease in the City of Mexico in 1902. In answer to my request for a reprint of his article, with true Spanish courtesy he sent me marked copies of the journals containing the Mexican literature on the subject.[2]

So far cases have been reported from almost all the most southern states (Mexican)—from the Isthmus of Tehuantepec and Yucatan to the states just above the City of Mexico. No cases have yet been reported from the immense northern states of Coahuila, Chihuahua, Sonora and Durango. As these states have a more temperate climate and severe winter, owing to their great altitude above sea level, the ankylostoma may never get hold on the higher plateaus. A careful watch for nearly two years has not been rewarded, so far, by a single case from Sonora, the large state adjoining Arizona, and I have to report my cases from Lower California and from Sinaloa, a state that forms a good part of the western seaboard. The discovery of the great prevalence of the disease in Lower California is of importance here because most of the people of northern Sonora have come from the mines of Santa Rosalia, in that peninsula, and they are the people who are now crossing into the United States. It is also of interest to note that railroads are being rapidly extended along the western seaboard, and Guaymas, where the disease is undoubtedly prevalent, is but a day's journey from Tucson, Arizona.

Dr. Manuell states that all the worms observed so far in Mexico are of the old world type; he believes that the parasites were introduced by foreign miners and have since been spread by the floating mining population. He thinks that sanitary regulations aimed at the disease should be inserted in the mining code. The mining camp privy is often an old abandoned tunnel, and as there is frequently a little stream of water running out of these tunnels, the conditions for the spread of the disease are ideal.

I had expected to find the new world species, but a careful examination of almost all my specimens shows only the *ankylostoma duodenale*. These are very large; they have two pairs of curved hook-like teeth; the vulva is situated about the posterior third of the body, and the caudal bursa of the male has the dorsal ray only partly divided.

The diagnosis is the most important thing, because once it is made the worms are far easier to remove than are most tæniæ. Whenever the diagnosis of a complaint in a patient from the tropics is not perfectly clear, and often when it seems to be easy, a differential blood count is indicated. One of my patients, a woman, had been to the United States and had been treated by several physicians and specialists for an obstinate tinnitus aurium. From her description of the treatment she must have had all the most approved methods used on her ears, nose and Eustachian tubes, but without improvement. As she was a large, stout woman, anemia had probably been ruled out in the diagnosis. I had small hope of helping her after all the special work had failed, but a routine examination discovered a hemic murmur and the differential count showed 18 per cent. eosinophiles. She had been brought up in Lower California and was infected with ankylostoma.

A blood count, to a man who does not make one several times a day or week, seems a great undertaking, and he is sure he could not find time for one, much less for several. A little practice will enable the physician to do a practical blood count while the patient waits, and he will frequently dismiss him much sooner than if he had tried to make the diagnosis by the history and physical examination alone. The physician should always carry with him a box of new slides and an ear lancet; a little vaccination scarificator with all the teeth but one broken off will do. On a convenient shelf in his office should be two dropping bottles, one containing Wright's or Hasting's blood stain and the other distilled water.

After the ear is pricked the hemoglobin may be estimated accurately enough in a moment with the Tall-

1. Anchylostomiasis in Mexico, Am. Pub. Health Assn. Rep., xxxii, part 1, pp. 201-204.
2. Besides his own communications, Rev. med., November, 1902, there are papers by Dr. Andres G. Castro, one of his students, Rev. med., September, 1903; Dr. A. Matienzo, Rev. med., January, 1904; and Dr. G. Castaneda y Escobar, Rev. med., April, 1904.

quist scale, and then a thin smear should be made, preferably with the edge of another slide. This should not be held firmly, but should rest on the finger, at the proper angle to the blood slide, which is also slightly inclined. Thus the blood is spread by the weight of the slide and not by the uncertain pressure of the hand, and the specimens are uniform in thickness and in the distribution of the leucocytes. The commonest fault is to take too large a drop of blood.

The absolute alcohol in the stain will fix the smear almost immediately, and the dilution with distilled water can be made. In a few minutes this active stain is washed off, the specimen is dried and it is ready for the oil. Half a minute's examination reveals a great deal to the eye that is at all accustomed to this work. It is better to use the mechanical stage so as to run across the smear, taking in both edges where the larger leucocytes concentrate, and where they would otherwise be overlooked.

This quick review will show the presence or absence of anemia, as the erythrocytes will be either well-shaped and full, or pale, malformed, polychromatic or even nucleated. The extent and character of these changes will greatly modify the prognosis. The relations of the whites to the reds should be observed at the same time, and with a little practice in this way one can estimate a leucocytosis almost as accurately as with a blood counter, especially if not in daily practice with that instrument. The practiced eye can tell in a moment if there is or is not a definite leucocytosis. If not, there is generally little to be gleaned from a full differential count. The man with a large practice can not take a full history and make a complete examination in every case, much as he might like to do so, and as he avoids unnecessary work there, so should he do in his laboratory.

Not all laboratory work is of practical benefit, and a large part of it is accessible only to the trained specialist in this branch, this rapid blood examination, however, is of immense value and can be done by any busy physician while he is talking to the patient on his first visit. It will prevent many mistakes and oversights, as is illustrated by one of my cases.

Mr. K. had been working on a railroad in the state of Sinaloa and was being treated for what seemed to be a fairly typical case of typhoid fever. A blood smear showed severe anemia with nucleated reds; there was also a marked leucopenia. The latter finding indicated typhoid but the discovery of estivoautumnal signet rings and crescents corrected the diagnosis. With appropriate treatment the patient was soon up and about. While the blood was being watched every few days for the final disappearance of crescents, it was noticed that as the leucocytes reappeared in the circulation, more and more were eosinophiles. When they reached 14 per cent., the stools were examined and ova of the ankylostoma were found in large numbers. Following the progress of the case with the microscope here prevented a serious oversight.

In tropical cases, after the quick review has shown the blood to be normal in most respects, there is no need of a complete differential count, as the important thing is the percentage of eosinophiles. A hundred cells can be quickly run over, noting only eosinophiles, and if the number be less than three, the probabilities are against the presence of intestinal parasites. A count between four and six demands the examination of another hundred and suggests the examination of the feces, while a count over this demands it. This would seem a very repugnant undertaking even to a physician, but the addition of a small amount of formaldehyd solution will soon remove the offensive odor. A small amount of feces should be taken so that it reaches to the edge of the cover-slip when spread out, and makes a thin smear. The condenser should be swung out, the diaphragm opened and the entire specimen should be examined, preferably with a mechanical stage. One should learn to use the 2/3 objective as with the 1/6 too much time would be required to examine the four specimens which should be studied before recourse is had to the concentration of the ova. The main difficulty with the searcher after uncinaria ova is that he is looking for an opaque object, and finds, among other things, stone cells which, with their facets, seem to be ova of some kind. He must look for what seems at first to be a tiny oval clear space in the surrounding opaque mass. He should swing the 1/6 on this and shut off a little of the light, then he would see the clear hyaline ring with the granular segmented center. Text-books are at fault in picturing hookworm ova with almost as heavy shades as are used for the trichocephalus or other ova. Students would be greatly aided by pictures of the eggs shown light on a dark background. A useful axiom in searching for animal parasites and ova is: If there is any doubt, the finding is negative. Nature's work is too perfect to be mistaken.

Many writers on this subject say that when there are very few eggs in the specimen, especially after the expulsion of most of the worms, the ova should be concentrated. A trial of all the methods[2] suggested in the last four years convinced me that even a physician accustomed to this work could do better with the usual smears, because the methods also concentrate the stone cells and other small bodies, and it is almost impossible to distinguish the ova in this rubbish. A recent discovery has solved the problem of cleaning the concentrate, and this method may now be used to advantage by any physician.

C. C. Bass[3] suggests the use of a strong solution of sodium chlorid which will float the ova so that they may be skimmed off. It is difficult to get the specific gravity just right so that it will float the eggs and not everything else. Telemann[4] mixes a small piece of feces with equal parts of ether and hydrochloric acid, and centrifuges after passing through a fine sieve. This will not concentrate very much and the acid is objectionable to handle.

B. B. Bagby[5] breaks up two grams of feces in a pint of water, and allowing five minutes each time to settle, washes the specimen three or four times besides straining through gauze to remove larger masses of undigested food. A little of the precipitate is taken from the very bottom with a pipette and the first drop from this is taken after standing a moment. This is the best way to concentrate the ova as a large amount of feces may be taken. The objection is that the concentrate is too full of small bodies resembling ova. The sedimentation also takes about half an hour. This time, however, need not be wasted. I observed while studying these concentrates that if the cover-slip were touched, everything moved but the ova, so this precedure was an aid to finding ova with the low-power objective,

3. Bass, C. C.: Uncinariasis in Mississippi, THE JOURNAL A. M. A., July 21, 1906, 185.
4. Deutsch. med. Wchnschr., Aug. 27, 1908: abstr. in THE JOURNAL A. M. A., Oct. 3, 1908, 1193.
5. A Simple Method of Finding the Ova of Uncinaria, THE JOURNAL A. M. A., Jan. 26, 1907, 325.

but the more valuable application of this observation did not occur to me.

Pepper[6] makes a most important contribution to this subject in showing that the ova seem to stick to the slide, and everything else may be floated off. He concentrates with the centrifuge and washes six times. The ordinary centrifuge tube holds very little, and it will generally be found more satisfactory to use a pint graduate and the force of gravity. If the centrifuge be used, a very few revolutions are needed for each washing.

I recently undertook a series of experiments in which each one of the reported methods and some combinations were given a thorough trial. The feces used in all the tests were taken from a man who had received a course of treatment and was supposedly cured, as eight ordinary smears showed no ova. Every method showed an ovum or two, but the results were uncertain. The same technic and the same care would at one time reveal a few ova and again none could be found. This is a great disadvantage for the busy practitioner as the results should be worthy of the time spent to obtain them.

A combination of Bagby's method of concentration and Pepper's scheme for cleaning the concentrate gave the best results by far, and some beautiful specimens were secured. The whole concentrate was placed on the center of a slide, and after a moment, the fluid was drawn off, keeping the mouth of the pipette as far away from the slide as possible. Water being added and drawn off again several times, nothing was left but eight or ten ova which could easily have been preserved for class instruction.

Under diagnosis may be mentioned a procedure recommended for physicians who do not possess a microscope; that is, to give a small dose of an anthelmintic and search for the worms in the evacuations. If uncinariasis be strongly suspected and the diagnosis can not be made microscopically, it would probably be better to give the full dose, because an anthelmintic energetically given, with the fasting before and the gastroenteritis after, is a thing the patient is liable to refuse a second time.

The treatment has seen some four periods in which male fern, thymol, chloroform and eucalyptus oil, and betanaphthol have been most highly recommended; but more important possibly than the drug employed is the skill in its administration and the thoroughness of the preparation of the patient. If one wishes to follow his cases carefully, he should have the patient bring the evacuations of the next two days. He will save himself much trouble if he orders that no paper be thrown in the vessel. If the physician do much of this work, his laboratory outfit should include a wire sieve about seven inches in diameter, which can be suspended over a bucket by wire handles which draw out. Such a seive may be found in any hardware store; and with it, the feces can be put under the tap and thoroughly washed. The worms can now be easily seen.

If an eosinophile count be made shortly after a successful treatment, one may be surprised to find that they have not decreased but increased in number. This point has not been mentioned much in the literature but it is constantly seen and is of interest in the study of eosinophilia. It may be due to the fact that in some diseases, such as typhoid, the return of the eosinophiles speaks for a favorable prognosis, and is a sign of recovery. Or it may be that the worms are stimulated by the anthelmintic to excrete more of the toxin which they probably elaborate, and which may be the substance that attracts the eosinophiles. In this connection it would be interesting to note if this increased eosinophilia occurs after an unsuccessful attempt to expel the parasites.

It is also interesting to study the relations of the degree of eosinophilia to the number of worms present. This relation is far from constant, and after a few years, there may be an acquired tolerance to the toxins of this and possibly other similar parasites. A. Hocart Brehaut[7] suggests that the low average eosinophilia observed in ankylostomiasis in Egypt is due to the tolerance that the natives have acquired to the toxins of the *Bilharzia hematobium*.

One often is surprised to see a patient with a very high eosinophilia recover completely after the expulsion of a dozen worms. These must have produced an unusually large amount of toxin, or else the patient was particularly sensitive.

6. Jour. Med. Research, March, 1908; abstr. in THE JOURNAL A. M. A., May 16, 1908, 1650.

7. Lancet, London, Aug. 1, 1908.

THE SCOPE OF A MATERNITY HOSPITAL AND OF OBSTETRICS AS A SURGICAL SPECIALTY *

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While clinical experience is not everything in medicine, it is so much more important than any other single factor in the physician's equipment, that I would hesitate, before a hospital staff with such a large service as that of the New York Lying-in Hospital to express views, or advocate measures, which must have been formed or adopted by all of us in pretty much the same shape to meet the exigencies of our kind of practice. It is profitable however, occasionally to contemplate the present status of any of the broad divisions of medicine, to study critically the achievements of the past, the possibilities and limitations of the present and the probable direction of future progress.

It is to the last particularly, that I shall attempt to call attention. No single branch of medicine is standing still for a moment. The Scotch surgeon and the American obstetrician who, in final addresses to their students in the first half of the nineteenth century, declared that there was nothing more to learn, would be properly humiliated if confronted to-day by the asepsis, the knowledge of bacteria, physiologic chemistry, instruments of precision and operative technic of which they never dreamed; and I dare say our successors will look on us with the same mixture of pity and wonder with which we regard our predecessors.

While the whole art and science of medicine are steadily advancing, it is noticeable that certain branches at times display unusual activity and progress. So-called gynecology—a misnomer, for only a part of the pathologic phenomena peculiar to women was understood by this term—so-called gynecology showed a feverish and precipitate development up to a few years ago. General medicine and general surgery had their turn.

Now, it seems to me, there is an unwonted interest in obstetrics, a more rapid progress than has ever been

* Read before the Alumni Society of the Lying-in Hospital of New York City, March 9, 1909, at its first annual meeting.

observed before in this oldest branch of medicine and a more hopeful outlook for the future.

For ages our guild has contended with the difficulties and dangers of parturition itself. Slowly, laboriously, but with an increasing impetus, we have learned how to deal with all of them in one way or another. In recent years the physiology and pathology of conception and gestation have been mastered, with the single exception of the gestational toxemias, but of them we have learned so much that we are on the verge of complete comprehension. Our knowledge of the etiology and pathology of the puerperal infections is fairly complete. In the preventive and curative treatment, however, there is room for improvement.

But where we have been and are weakest is in the recognition and prompt correction of all the pathologic consequences of the child-bearing process that have reduced to invalidism millions of women, who ought to have been as well and sound after delivery as they were before conception. Here is the greatest room for improvement; and this, I am convinced, is the direction of future progress.

The injuries of the genital canal, malpositions of the uterus, pathologic conditions of the broad ligaments and appendages, lack of tonicity in the abdominal walls, enfeebled support of the abdominal viscera, injury of the coccyx, impairment of function in the pelvic nerves, are all diseases which we must trace directly to child-bearing as *the* etiologic factor. But how often does the average practitioner bear these facts in mind in his routine care of child-bearing women? How many of the maternity hospital staffs in this country realize that it is as much a part of their duty to watch for all the immediate and remote consequences and complications of the child-bearing act at all periods, and to correct them in their incipiency, as it is to deliver a woman safely and to guard her against the dangers of immediate infection? To speak well within bounds, it is safe to say, not all of them.

It might be objected that it is utopian to expect so much of institutions merely designed to shelter women during childbirth and for the few days afterwards required to put them on their feet. But it is perfectly practicable to give our hospital patients this kind of care, and moreover so advantageous to the patients, to the institution, and to the physicians in charge that self-interest alone must work in this direction aside from higher considerations. Take the New York Lying-In Hospital, for example. Suppose that every woman cared for in this great clinical service was subjected to as careful a gynecologic examination after labor to detect all the possible injuries of the genital canal as the competent gynecologist would make to establish such a diagnosis in one of his office patients; that every one of their injuries was completely and successfully repaired as they all can be during the puerperium; suppose that every patient was examined about three weeks after the termination of gestation to determine the position of the uterus; that a final examination was made at the conclusion of the puerperium, the end of six weeks, to learn the condition of the pelvic floor, vaginal walls, cervix, uterus, broad ligaments, appendages, abdominal walls, abdominal viscera and the coccyx; and that all the abnormalities thus discovered were appropriately treated without delay. What an enormous gain must accrue to the individual in the preservation of perfect health and usefulness; what a wide-spread influence on the family and therefore on the community must result if the mother is made competent to care for her children, the housekeeper enabled to perform her duties, the wife preserved as a cheerful and uncomplaining companion for her husband! Think of the reputation of the institution dealing thus with large numbers of such cases, its hold on the community, its command of material support, if it is recognized as the source of such blessings to the numerous patients in its beneficent charge!

Finally what opportunity is greater in medicine today than that of the master of the modern maternity hospital? He can truthfully claim to be the only specialist qualified as an expert in all the pathologic phenomena peculiar to women; the only specialist deserving the title of gynecologist. No one else can approach him in command of clinical material, in extent and variety of experience. No one, therefore, can rival him in efficiency. This seems so self-evident that insistence on it seems superfluous. But it must be remembered that it is only in the last decade or so that we have had any maternity hospitals in America properly equipped for all the work that it is their duty to perform. In Europe the great maternities have naturally provided for the treatment of all the pathologic conditions in women; their equipment and their medical officers have undergone the necessary evolution required for the surgical treatment of conditions, the majority of which are traceable to child-bearing. But here, as one of the signs of our newer and cruder civilization, the absurdly illogical system has prevailed of one set of specialists devoting its attention to the act of childbirth itself, but so neglecting its pathologic consequences that another set of specialists had to be developed to do the work properly belonging to the first.

Another argument that should appeal to us forcibly is that the great specialty of gynecology can be rescued from extinction as a specialty in America, if those of us who devote ourselves to it will learn the whole subject in its entirety, as it can be learned in the properly equipped, properly constructed and properly conducted modern maternity hospital, and nowhere else.

Two or three years ago the superintendent of a new general hospital was showing me the building. I asked him what arrangements had been made for a gynecologic department. He replied that there was none. He had investigated the matter, he said, and had found a gynecologist in one of the Boston hospitals removing gallstones and a general surgeon in another removing pus tubes. He could see, therefore, no difference between the two and recommended that the gynecologic work be put in the hands of the general surgeons, which was done.

A story is told of a Philadelphia hospital that on the same day one gynecologist took a stone from a man's ureter and another amputated a leg. It is no wonder that the general surgeon derides the pretentions of the kind of gynecologist we have had in America to a special skill and knowledge of the pathology of woman: a specialist who has learned but a part of his subject and finds his field so limited that he is forced to make excursions into general surgery. But the best solution of this problem is not the absorption of gynecologic surgery by the general surgeon, although I think it would be, if we, who are in charge of the maternities of the country do not undertake the work ourselves. While the general surgeon and the limited gynecologic surgeon are often equally inexperienced in the relations

of pelvic and abdominal surgery in women to the child-bearing process with which the condition to be treated surgically are almost always intimately associated, the general surgeon at least has the advantage of broader surgical training.

We should be incapable of making mistakes, the result of limited experience and training. If the gynecologic surgeon has a broad education in all the physiologic and pathologic phenomena of women, experience in the intimate relationship between the diseases of women and the child-bearing process, ability to judge of the effects of various procedures on future conceptions and labors, and a command of clinical material that no one else can equal, not only is the patient safer in his hands, but the progress of gynecologic surgery must be more rapid and more certain.

After all these generalities let us discuss practical details and the application of these principles to the work being done in the New York Lying-In Hospital, if an outsider, who is earnestly interested in seeing the greatest hospital of its kind in this hemisphere fulfill its mission as primate among all the maternity hospitals of America, may be permitted to express his views.

The last annual report of the New York Lying-In Hospital shows that 6,274 women were delivered in the in-patient and out-patient departments. I know from a number of years' experience in this work in Philadelphia, done as I am convinced it ought to be done, that one-fourth of this number required some sort of surgical treatment for the various consequences and complications of the child-bearing process. There ought, therefore, to be provided for this important part of the work, which can not be ignored without shirking an obvious duty, accommodation for 1,500 surgical cases a year in the hospital in addition to the space set aside for the women during child-birth and the puerperal convalescence and for their infants. Allowing an average of two weeks for convalescence from the surgical treatment, which, however, can be considerably reduced in many instances by combining surgical and puerperal convalescence, there ought to be enough beds for about fifty surgical cases at one time. In an institution of this size such an accommodation as this ought easily to be provided.

But I would not stop there. Without special effort and from the material already under the control of the hospital, it can begin with a larger amount of clinical material in the diseases of women than any other hospital in the community. Therefore, the bulk of all this material would naturally gravitate to the New York Lying-In Hospital as it does to the Charité and to the Frauenklinik in Berlin or to the Allgemeines Krankenhaus in Vienna.

In justice to the institution and to the staff, accommodation should be provided for these patients who seek relief from a greater experience and a hence a greater skill than they can find elsewhere. One hundred beds would not be too many as a beginning for this department of the work.

I am aware that this proposition is open to two objections, one that such a space devoted to the treatment of diseases of women might crowd out the patients for whom the hospital was originally intended; the other that the expense of construction and maintenance, if additional accommodation were provided, might be prohibitive.

The answer to the first objection is that additional space should be provided The second objection can not be valid in a community like this, of enormous wealth, scornful of material obstacles, of progressive ideas, responding magnificently to any appeal to humanity, to progress, to civic pride.

A concerted and determined effort on the part of the officers and the alumni would quickly remove this difficulty.

Another objection that I have heard from one of the medical officers is that the women who have been cared for in childbirth by the hospital staff can not be induced to remain in or to return to the hospital for the surgical treatment of the consequences of childbirth. On this point I can again speak from personal experience. A certain proportion of the patients are unable to leave their homes for a sufficient time, or are unwilling to submit to an operation or callously endure discomfort and actual suffering, but this is true only of a minority, and this minority can steadily be reduced in time by persistent effort. It is first necessary to provide adequate dispensary facilities; second, to pay extra visits in the homes of the out-patients at a much later period after childbirth than is customary; and, third, to inculcate in each patient the importance to herself, her added usefulness, her increased ability to work and her greater wage-earning capacity if she keeps herself under medical observation long enough to establish the fact that she is in a satisfactory condition or is put in such a condition by appropriate surgical or other treatment. Finally, each patient so cared for is a missionary among her neighbors, who are impressed with the object-lesson of her superior physical condition contrasted with their own.

All this takes time, but there is a steady and constant progression each year. It would not be long before an institution with the advantages already possessed by the New York Lying-In Hospital would become the greatest center in the country for the study and the treatment of all the pathologic phenomena peculiar to women.

If the opportunity is unimproved, the primacy in this work will probably pass to Chicago, where a frauenklinik is about to be erected and developed, I understand, on the lines I have advocated. I wish I could think it might pass to Philadelphia.

By refusing to be discouraged or rebuffed, by working steadily according to the plan just outlined, I have established a clinical service of more than 2,000 cases a year, which gives me sole control of the largest amount of clinical material in all the pathologic phenomena peculiar to women possessed by any one in my community. From March 1, 1908, to March 1, 1909, I have had in two of my hospital services, the University and Howard, 1,122 gynecologic operations, using that term in its correct sense to indicate all the operations required for all the pathologic phenomena peculiar to women, and this is exclusive of other hospital work and private practice.

My excuse for intruding advice on the conduct of an institution such as the New York Lying-In Hospital must be an earnest interest in the work it is doing, an honest enthusiasm in contemplating its opportunities and a patriotic pride in the wish that the largest and richest maternity hospital in America shall rise above the level of a training school for midwives, as so many of them in this country are, to be at least the equal of any hospital of its kind in the world.

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NATIONAL FORMULARY NOMENCLATURE*

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It is with the utmost reluctance and diffidence that I undertake the task assigned me of criticizing the nomenclature of the National Formulary, a recognized federal legal standard. I have a keen perception of the high ideals, sterling integrity and noble purposes of the members of the committee which compiled this volume, and to comment adversely on the work of men who have had a much larger experience in some lines than I have had, might be considered impetuous impertinence on my part. I feel, however, that it is the duty of every member to point out such defects and shortcomings as come to his attention; otherwise progress would indeed be slow. I further realize that there are few members in the pharmaceutical profession who have been brought so intimately in contact, in a matter-of-fact way, not only with the excellent features of the National Formulary, but also with the shortcomings of its nomenclature, as I have been, and it is some of the information and experience gained during the past few years that I desire to put in evidence.

Many changes have been wrought during the last few years. What was considered permissible to a certain degree ten years ago—yea, three years ago—might be in violation of the present law, and the leading association of the pharmaceutical profession should be in the lead in rectifying such transgressions. The argument is at times advanced that some of the titles may be slightly inconsistent or misleading or even deceptive, yet they have long been in use and for that reason are entitled to recognition. This hereditary argument is interesting but invalid. In this communication I shall utilize largely representative, practical illustrations met in my work.

NAME OF DRUG VERSUS ITS CONSTITUENTS

Soon after the federal law was enacted a manufacturer desired to know whether the use of the name "mandragorin" was permissible under the act. He was advised that if the preparation was mandragorin, in fact, prepared from mandragora root, such name would be considered proper; otherwise, its use would be misleading and therefore forbidden. He then informed us that the product to which he was applying the name "mandragorin" was a mixture, containing, among other ingredients, the alkaloids present in mandragora root, but that the preparation was not made directly from this root; and he was advised that the use of the name "mandragorin" for such a mixture was improper. The question raised in connection with this product was the authoritative nature of the National Formulary and whether the principles embodied in its nomenclature would be restricted to N. F. preparations, or if they would be applicable to other products. Attention was called to the fact that "elixir of cinchona," synonym "elixir calisaya" was prepared by dissolving salts of the three principal alkaloids of cinchona bark in aromatic elixir and coloring the mixture to imitate an elixir prepared from cinchona bark proper. Without continuing the subject further, suffice it to say that the name "mandragorin" is no longer applied to the mixture in question; but there is no gainsaying the fact, that the manufacturer here has a good basis for an argument.

A moment's reflection will convince even the skeptic that the principle in question would open the field for innumerable improper, if not absolutely deceptive and misleading practices. For example, according to this principle it would be perfectly proper to prepare "tincture of nux vomica" by dissolving a suitable quantity of strychnin sulphate in an alcoholic solution of proper strength and coloring the same with burnt sugar. Again, it would be just as logical to dissolve a certain amount of vanillin in a suitable menstruum, to color the mixture with caramel and call the product "vanilla extract." Again, a tablet containing any salt of the alkaloid berberin could justly be named hydrastis tablet." From this, it is only a step to the "formerly" so-called "bitterless quinin" preparations which did not contain any quinin at all, but cinchonin or possibly some other cinchona bark alkaloid. The above products are plain imitations, the sale of which, in the case of drugs, is declared illegal by the federal and many state laws. No hesitation would be entertained in bringing a prosecution against a dealer in such improperly named commodities. In fact, so-called vanilla extracts, consisting of vanillin, with or without coumarin, dissolved in a suitable menstruum and colored in imitation of genuine products, have been adjudged adulterated and misbranded by the courts in that such articles were not real vanilla extracts, but imitations designed to deceive the public. A case of this character is reported in "Notice of Judgment No. 14" of the United States Department of Agriculture.

Elixir of cinchona is, however, only one of a number of preparations of this class found in the National Formulary. This same principle underlies eight other elixirs of which the name "cinchona" constitutes a part of the title. Other examples are: 1. "Wine of beef, iron and cinchona," synonym "beef, wine, iron and cinchona." There is no cinchona whatever in this product, but it is represented by the sulphates of quinin and cinchonidin. 2. "Tartro-citric lemonade." This preparation is a sweetened, aqueous mixture of tartaric acid, citric acid and sodium bicarbonate. I see no good reason whatever for appending to this product the name "lemonade," either qualified or otherwise. 3. "Emulsion of petroleum." This product does not contain any petroleum whatever, but "petrolatum album." The chief active agent of this preparation appears to be the expressed oil of almond. Petroleum proper and kerosene are believed by some to be of service as remedial agents, but I myself question very much whether any medicinal value that may be ascribed to this emulsion is due to the petrolatum it contains. The name certainly is not in harmony with its composition, and is therefore misleading.

USE OF THE WORD "COMPOUND"

It has long been the practice to name medicinal preparations after a valuable constituent, even though such constituent is only one of a number, and is frequently present in small quantities and in some cases not at all. In view of recent legislation, it soon began to be realized that such names were improper and information was sought relative to the proper use of the word "compound" in connection with certain mixtures. It is clearly evident that the naming of a preparation after a constituent which is either not present, or is virtually inactive or is present in such a small quantity as to impart little if any activity to the product, a practice formerly not uncommon, with or without the use of the word "compound," is improper and

* Read before the March meeting of the Washington branch of the American Pharmaceutical Association.

misleading. This subject calls to mind many improper and deceptive names; for example, "castor oil pills" and "castor oil tablets," with little if any castor oil, except such as may have been used in lubricating the machinery; "copaiba pearls" with only a nominal amount of copaiba; quinin products in which other cinchona alkaloids have been largely substituted for the quinin, etc. I desire also to direct attention to a protracted correspondence in connection with a so-called "rattlesnake oil liniment," the object of which was to justify the use of the term "rattlesnake oil" as a part of the name of the preparation. The reason why the dealer was so anxious to use the term "rattlesnake oil" was the belief entertained by many that this oil is of great efficacy in the treatment of rheumatism. It finally developed that the preparation contained 1/3 of 1 per cent. or one ounce of the oil to three hundred ounces of the finished product. This amount of rattlesnake oil in the liniment appears certainly to be small justification to name the preparation "rattlesnake oil liniment," either with or without the word "compound," and its use has been discontinued.

On referring to the National Formulary we find that in the manufacture of "compound syrup of Irish moss," only 0.1 per cent., or one part in one thousand, of Irish moss, which at most possesses only demulcent properties, is used. If the name "compound syrup of Irish moss," which represents such a trival amount of Irish moss, is correct, why is not "rattlesnake oil liniment compound"? As can readily be seen, the above involves a very important principle. The Irish moss preparation may be a comparatively innocent and, as some one says "an isolated case," but it should be remembered that it is practically impossible to draw a line of demarcation when a precedent is established. This is exceedingly difficult, even with the National Formulary preparations, to say nothing of the host of proprietary remedies involving this principle. It is not the ninety and nine that give the trouble but the one black sheep. Compound syrup of Irish moss is, however, not the only offending "compounded" name in the National Formulary, as will shortly be seen.

Attention is now called to a personal interview which recently took place in connection with a headache remedy containing the word "celery" in its title. The manufacturer recognized the shortcomings of the original name and believed that the addition of the word "compound" would rectify the difficulty. He well realized that the celery present in the product did not constitute any material portion of the activity of the drug but that its potent agents at different times were acetanilid or acetphenetidin and caffein and other ingredients. When the question was raised as to the propriety of using the term "celery" in the name of this mixture, the manufacturer stated that a large proportion of the commercial value of the preparation resided in this word, in that the consumer had been taught from youth up that celery was a valuable remedial agent and the elimination of this word from the name of the product, long in use, would mean a serious loss. Reference was then made to the National Formulary "compound elixir of celery," which might more properly be called "elixir of coca and kola compound." The headache remedy represented a substantial amount of celery and the manufacturer was willing to increase it if necessary. The principle involved in the two cases is apparently the same, and if it is proper in one it is difficult to see why it is not in the other. Another National Formulary preparation referred to at times in similar cases is "compound pills of colocynth." It can readily be imagined that parallelisms of the above character may at times become embarrassing.

After considering various schemes and numerous arguments presented by dealers relative to the origin and existence of deceptive and misleading names and the justifications offered for using the word "compound" to cover up the defects, it was decided on January 3, 1907, to address a letter to the chairman of the National Formulary committee, calling attention to the abuses which took shelter behind the nomenclature of the National Formulary, particularly in connection with the use of the word "compound" and asking that the committee take the subject under advisement and define its attitude on the question. In reply on February 21, 1907, I received a letter from the chairman containing among others the following paragraphs:

> While the committee deprecates and would discountenance the use of any misleading titles whatsoever, it does not concede that such exists in the National Formulary, and particularly not such in which the term "compound" is used.
>
> Although the pharmaceutical practice is not strongly defined and while manufacturers do not always adhere to the generally accepted limitations of the word "compound," yet it is understood that the dominant medicinal agent, irrespective of its mere quantitative relation, gives title to the preparation, and that the other ingredients—the synergic, corrective or adjuvant—in a compound preparation, are the ones that come under the generic title "compound."
>
> As regards the innovations of manufacturers, the committee can not see how the text of the National Formulary can be held as being conducive to the innovation of fraudulent titles, simply because, in connection with the titles of preparations there may appear some well-known and long-used synonyms that are slightly inconsistent. It is respectively submitted that manufacturers who can give as good reasons for the use of the term "compound" as has been herein offered, may be allowed its use without jeopardy to the public.

From the above it was quite apparent that the committee did not intend to give much relief to the embarrassment. It is not clear what is meant by the phrase "slightly inconsistent," but the committee can be assured that manufacturers with the aid of their attorneys give just as plausible reasons for the names they are using as any that have yet come to my attention justifying the use of certain National Formulary names. In order to relieve the situation it was necessary to issue a decision limiting the use of the word "compound" in connection with mixtures, and the following principles were set forth in Food Inspection Decision No. 63:

> In no case can a preparation be named after an ingredient or drug which is not present. The word "compound" should not be used in connection with a name, which in itself, or together with representations and designs accompanying same, would be construed as a form of misbranding under the act.
>
> It is held that if a mixture of drugs is named after one or more but not all of the active medicinal constituents (not vehicle) present in a preparation, the word "compound" can be used in connection with the name, (a) provided the active constituent after which the product is named is present in an amount at least equal to that of any other active medicinal agent present. Example: If it is desired to make a mixture consisting of oil of sandalwood, balsam copaiba, and castor oil, and call this product "oil of sandalwood compound," the oil of sandalwood should constitute at least 33⅓ per cent. of the entire mixture. Or (b) provided the potent active constituent after which the product is named is present in sufficient amount to impart the preponderating medicinal effect. Example: If a product is named after the active constituent,

strychnin, the strychnin or one of its salts should be present in sufficient amount to produce the preponderating medicinal effect of the preparation.

If the above principles were adhered to there would be little improper use of this word. In order to provide for contingencies that were constantly arising in connection with the National Formulary nomenclature, it was necessary to include in this decision the following paragraph:

Or (c) provided the complete quantitative formula as outlined in the United States Pharmacopeia and National Formulary, be given on the principal label.

The latter requirement eliminated controversies relative to the improper use of the word "compound" in connection with trade-names bearing the name or names of one or more drugs. The manufacturer of proprietary remedies seldom voluntarily discloses such information and usually resorts to some other expedient. This proviso in Food Inspection Decision No. 63 can not, however, be construed to mean that when the quantitative working formula is given, any form of compounded deceptive and misleading name may be used.

At this juncture it is desirable to note the attitude of the highest court towards deceptive and misleading names, by quoting extracts from the opinion of the United States Supreme Court:[1]

On this point the contention of the plaintiff is that its (the company's) preparation is not a syrup of figs, since it contains only a very small precentage of the juice of the fig; that the laxative ingredient in it is senna. The evidence shows that the compound is not a syrup of figs. It might more properly be termed a " syrup of senna," if the words were intended to be descriptive of the article. But, assuming this not a syrup of figs, we are met with the inquiry whether these words, as applied to this preparation are not deceptive.

The popularity of this medicine arises from the belief in the mind of the ordinary purchaser that he is buying a laxative compound, the essential ingredient of which is the California fig, whereas, in fact, he is buying a medicine the active property of which is senna.

It has intended the public to understand that the preparation which it sells has, as an important medicinal agent in its composition, the juice of California figs. This has undoubtedly led the public into the purchase of the preparation. The statement is wholly untrue. Just a suspicion of fig juice has been put into the preparation, not for the purpose of changing its medicinal character, or even its flavor, but merely to give a weak support to the statement that the article sold is syrup of figs. This is a fraud on the public. It is true, it may be a harmless humbug to palm off on the public as syrup of figs what is syrup of senna, but it is nevertheless of such a character that a court of equity will not encourage it by extending any relief to the person who seeks to protect a business which has grown out of and is dependent on such deceit.

We are not much impressed with the force of this attempted distinction. Even if it were true that, at the time the medicine in question was first made and put on the market, the juice of figs was so largely used as one of the ingredients, as to have warranted the adoption of the name "Syrup of Figs" as descriptive of the nature of the medicine, that would be no justification for continuing the use of the term after the manufacturers and vendors of the medicine ceased to use fig juice as a material ingredient. Even if the term was honestly applied in the first instance, as descriptive, it would none the less be deceptive and misleading when, as is shown in the present case, it ceased to be a truthful statement of the nature of the compound. Nor are we disposed to concede that, under the evidence in the present case, the term "syrup of figs" or "fig syrup" was properly used as descriptive of the nature of the medicine when it was first made. Then, as now, the operative laxative element was senna, and the addition of fig juice was, at the best, experimental, and apparently was intended to attract the patronage of the public by holding out the name of the medicine as "syrup of figs."

On such allegations and the admissions of the complainant's principal witness, some of which are hereinbefore quoted, and on the entire evidence in the case, and in the light of the authorities cited by the counsel of the respective parties, our conclusions are that the name "syrup of figs" does not, in fact, properly designate or describe the preparation made and sold by the California Fig Syrup Company, so as to be susceptible of appropriation as a trade-mark, and that the marks and names, used on the bottles containing complainant's preparation, and on the cartons and wrappers containing the bottles, are so plainly descriptive as to deprive the complainant company of a right to a remedy by way of an injunction by a court of equity.

1. Worden versus California Fig Syrup Company, 1902, found in United States Reports, clxxxvii, 516, et seq.

PRIORITY IN NAME

The federal and a number of state laws specify that if an article is sold under a name recognized by the National Formulary, such article is adulterated if it differs from the standard of strength of this authority, excepting in those cases in which its own standard of strength, quality or purity is plainly stated on the box, bottle or other container. From this it follows that a preparation bearing a National Formulary name must be prepared either in accordance with the formula recognized by this authority, or give its own standard of strength, quality, etc., on the label. If, for example, "essence of pepsin" (or "pepsine") should be prepared by any other method than that prescribed by the National Formulary there appears to be only one course left, and that is to state plainly its own standard of strength, quality or purity on the label. Soon after the enactment of the law several manufacturers who had marketed preparations under certain trade names many years before the third edition of the National Formulary was published raised the question as to the status of such names. There appears to be no difficulty whatever in supplying authentic information to the effect that certain trade names had long been in use by certain manufacturers at the time the titles were incorporated in the National Formulary. For example, "phenol sodique," according to United States trade-mark No. 45,704, has been in use since 1863; certainly sufficiently long to acquire a property right that a court of equity would protect. It is well established that a proper trade-mark, whether registered or not, is protected by common law and it is highly questionable whether any court in equity would entertain a case in criminal prosecution in which such a trade-mark had been appropriated for use by the National Formulary, and subsequent legislation required either that the manufacturer disclose the nature of his manufacturing process or employ the National Formulary formula. It should be noted that in "errata" issued by the committee in 1907 it is directed to strike out "phenol sodique," but whether this will relieve the difficulty is not clear. In a number of instances the state courts have held that in case the United States Pharmacopeia is specified an authority by law the edition in force at the time the law was passed is legal, and no other.

Another trade name similar to the one above found its way into the National Formulary, namely, "essence of pepsin." This name can not be trade-marked in the United States because of its descriptive or generic character. The name, however, has been long in use by at least two manufacturers for distinctive products, in one

case for about thirty years. An article made according to the National Formulary formula is, furthermore, not an "essence of pepsin," but a solution of pepsin and rennin. Many labor under the impression that owners of proprietary remedies deserve little consideration, but I submit that they have rights which should be respected and which are deserving of at least a square deal. The federal as well as a number of state laws are mandatory relative to the proper use of National Formulary names, and those directed to enforce them have no option. It is the plain duty of the committee to apply a proper remedy.

GEOGRAPHIC NAMES

It has been a common practice to use a geographic name as part of a trade name, even though the preparation to which such name is applied has no connection whatever with the geographic locality indicated by the name; for example, "German diphtheria remedy," "Swedish asthma cure," "Japanese oil," etc. The use of such names is misleading and a number of regulations were promulgated forbidding their use. One regulation permits the use of any name recognized in the United States Pharmacopeia or National Formulary, while another forbids the use of a geographic name in connection with a drug product which is not manufactured or produced. On referring to the National Formulary we find two geographic names, viz., "Canada liniment" and "French mixture," which complicate the regulations referred to above. There appears to be little justification for retaining these names.

In order to indicate the attitude of the courts relative to the improper use of geographic names, many years before the Food and Drug Act became effective, extracts from several court decisions will be cited.

In Connell vs. Read, 1880, 128 Mass., p. 477, an effort was made to establish an exclusive right to the words "East Indian." The opinion of the court in disposing of this case contains the following statement:

> The conclusive answer to this suit is that the plaintiffs have adopted and used these words to denote, and to indicate to the public, that the medicines were used in the East Indies, and that the formula for them was obtained there, neither of which is the fact. Under these circumstances, to maintain this bill would be to lend the aid of the court to a scheme to defraud the public.

In a Supreme Court decision[2] the above case with others is cited with approval in the following language:

> The doctrine enunciated in all these cases is founded in honesty and good sense; it rebukes fraud and encourages fair dealing with the public. In conformity with it, this case has no standing before a court of equity.

The United States Supreme Court (1883), in its opinion relative to granting the exclusive right to a certain trade-mark,[3] says:

> A court of equity will extend no aid to sustain a claim to a trade-mark of an article which is put forth with a misrepresentation to the public as to the manufacturers of the article, and as to the place where it is manufactured, both of which particulars were originally circumstances to guide the purchaser of the medicine.
>
> It is admitted that whatever value the medicine possesses was given to it by its original manufacturer, Moses Atwood. He lived in Georgetown, Mass. He manufactured the medicine there. He sold it with the designation that it was his preparation, "Atwood's Vegetable Physicial Jaundice Bitters," and was manufactured there by him. As the medicine was tried and proved to be useful, it was sought for under that designation, and that purchasers might not be misled, it was always accompanied with a label, showing by whom and at what place it was prepared. These statements were deemed important in promoting the use of the article and its sale, or they would not have been continued by the assignees of the original inventor. And yet they could not be used with any honest purpose when both statements had ceased to be true. It is not honest to state that a medicine is manufactured by Moses Atwood of Georgetown, Mass., when it is manufactured by the Manhattan Medicine Company, in the City of New York.

The extracts contained in this communication, taken from the court decisions, are clear, succinct, to the point and do not need any comment.

SUGGESTIVE THERAPEUTIC NAMES AND HABIT-FORMING DRUGS

A number of preparations are named either after some anatomical portion of the body or suggest some diseased condition; for example, "pectoral tincture," "mistura pectoralis," "anti-neuralgic pill," "catarrh powder," etc. Are these suggestive names intended for the benefit of the physician or the druggist? In either case they are uncalled-for, particularly in view of the fact that most of the preparations contain habit-forming agents. The practice of concealing the presence of these insidious drugs by various innocent names should be looked on with disfavor. In my opinion preparations of this class are responsible for many cases of drug addiction.

MEDICINE VERSUS BRACERS

There is a host of commodities on the market which owe their virtue chiefly to the alcohol contained therein. They are usually sold under generic names, such as medicinal wines, bitters, tonics, vermouths, etc., many of which contain only traces of certain medicinal agents, such as extract of cinchona, gentian, beef, calumba, various combinations of iron, etc., or very small amounts of one or more of the cinchona alkaloids. One of the products recently examined was found to contain not more than one-fortieth of a grain of total alkaloidal matter to the fluid ounce. Another preparation contained very small amounts of cinchona extracts and iron salts. The dealer was requested to show cause why the name of his preparation should not be adjudged a misnomer. One of the arguments presented to justify the use of his name was the National Formulary "beef, wine and iron" product. A careful comparison showed that the amount of actual iron compound present in the product under consideration was less than the amount represented by the National Formulary product but not sufficient to warrant holding one misbranded if the other was not. The former was intended largely for beverage purposes and it is well known that the Commissioner of Internal Revenue seriously considered classing "beef, wine and iron" as a beverage also. The point raised in connection with these two products is an exceedingly important one and requires adjustment. If it is permissible to add simply enough of an agent to merely suggest a certain physiologic action, be it ever so remote, primarily for the purpose of using the name of a substance possessing recognized medicinal properties, in conjunction with the trade name of a commodity, one helpful feature of the law would be largely negatived and an ever-increasing number of so-called medicinal products of the most absurd character could be placed on the market. When it is remembered that the best element of the pharma-

2. Manhattan Medicine Co. vs. Wood, local citation.
3. Manhattan Medicine Co. vs. Wood, U. S. Reports, cviii, 218.

ceutical profession is making strenuous efforts to remove the odious name "liquor dealers" from the members of their profession it is difficult to comprehend why products of the type referred to above should be retained in an authorized publication of any pharmaceutical organization. The above should not be construed in any manner as referring to liquor proper when sold and used as such for medicinal purposes.

In conclusion, I desire to state that the National Formulary nomenclature contains many excellent features which are not referred to in this communication, because its chief purpose is to call attention to the shortcomings of the nomenclature, leaving mention of the good features to others. I fully realize that the criticisms are largely of a general character, but if carefully applied they will rectify many undesirable features existing at present.

THE PHILOSOPHIC ANATOMY OF THE TONGUE

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The aim of philosophic anatomy is the study of the reason of things, of the principles, of the general laws of anatomy, of the relation of cause and effect. It includes also, last but not least, the singling out of the peculiarities, i. e., the special features presented by organs, and it endeavors to explain their reason, their why, their wherefore. The task is not an easy one in the present condition of our knowledge. Studied from this point of view, the dryness of anatomy vanishes and it becomes a revelation to the student. In this study, it is assumed that the reader is familiar with the peculiarities and no description of them shall be repeated.

The philosophic anatomy of the tongue, given below, is an attempt to illustrate this idea. It will be followed later by other similar descriptions of a subject which has never been touched before by any one, as far as I am informed.

Esop, the great fabulist, being one day ordered by his master to serve on his table the best thing he knew, served him a tongue. Then the master ordered him to serve the next day the worst thing he knew, and Esop served a tongue again. He meant thereby that the tongue was the best and worst thing he knew. We can not recall any other organ of which we could say as much, except, perhaps, the brain. But Esop was speaking figuratively.

The tongue, the nose and the skin are the only organs of special sense which perform also other functions. The eye and ear do nothing else but see and hear. The tongue acts also in prehension, mastication, deglutition and speech. The skin acts also in perspiration and elimination.

The tongue is one of the organs which present a base, a body and an apex, the other organ presenting such divisions being the heart. It is a single or whole organ in the human species, but in some of the lower animals its point is bifid. The point of the heart, however, is often slightly grooved. The tongue is sometimes too large for the cavity of the mouth, and that causes a peculiar kind of articulation. We say of some people, who talk too much, that they have too much tongue; also that they have sharp tongues.

In the condition of rest the tongue is in the mouth proper, but it is readily and rapidly protruded out of it. It is the only organ that can be made to protrude out of the cavity that contains it.

No other organ can assume more various directions and shapes than the tongue. No other organ has so many of its parts attached to its surroundings, the base being attached to the hyoid bone; most of its under surface to the floor of the mouth. It presents a frenum, or bridle. The other organs that have a frenum are, the glans penis, the clitoris, the lips; but the frenum of the tongue is most marked. This frenum presents the twisted papillæ of Wharton's duct, and no such peculiarity is seen along any other frenum or bridle.

Yet the tongue is the most movable of all organs of the body. No other organ can assume so many different shapes. The hand and fingers come next, but the tongue can assume more various shapes and positions than the hand can. The tongue moves also with the hyoid bone during deglutition. The other organs which possess such extrinsic movements are, the pharynx, larynx, trachea, thyroid body, and the liver.

The shape of the tongue must be specially noted. It is used to describe other organs. We say of some that they are tongue-shaped. The uvula is a miniature tongue.

We must particularly mention the great differences between the posterior third of the organ behind the circumvallate papillæ, which is deprived of papillæ, and the anterior two-thirds which are covered with papillæ; the differences also between the dorsal aspect of the tongue, covered with papillæ, and the under surface, which is smooth. The under surface presents a peculiar blue streak, due to the presence of the superficial submucous ranine vein, which is not seen anywhere else.

The borders of the tongue, being in contact with the teeth, often retain their imprint temporarily, which no other organ does with its surroundings. Whereas the base of the tongue is fixed in position and shape, the point, on the contrary, is most movable and changeable in size and shape.

The tongue is one of the organs which presents a dual structure, in accordance with its dual functions, the functions of an organ of special sense and those of an organ of motion participating in the acts of prehension, mastication, deglutition and speech.

That the color of the tongue varies more than that of any other organ, is worthy of note. Its different shades are familiar to the clinician. Some people have a remarkably bluish tongue. I will only mention here the would-be beauties that dye their tongue to give it a bright hue, as they paint their faces and their eyes.

The tongue has a firmer consistency than any other viscus, being a solid organ and a muscle. The other muscular viscus is the heart, but it is a hollow organ.

The tongue has only one envelop, the mucous membrane, and it is to be remarked that it is very adherent on the dorsal surface, more so than anywhere else, except the gums and the hard palate; on its under surface its looseness is greater than in any other situation.

The characteristic elements in the structure of the tongue are the papillæ. It is to be noted that they are situated only in the anterior two-thirds of the back of the tongue; that there are three varieties of them; that the larger they are, the less numerous they are, and the further back they are situated; that the most numerous, the filiform or conical, exist everywhere.

Their names are truly well chosen; the circumvallate represent a circumvallation, but it is to be noted that the real papilla, which occupies the circumvallation, is a truncated cone which stands on, i. e., is implanted by its apex and not by its base.

We must bear in mind that taste goblets exist only in the hemispheric and the circumvallate papillæ, and not in the conical; that these are provided with long epithelial processes, the object of which seems to be to retard the course of the fluids on the surface of the tongue, thereby giving the taste goblets time to be thoroughly impressed by the special taste of the fluids. These long epithelial processes are characteristic and unique. No other organ presents them.

The papillæ of the tongue are the same as the small microscopic papillæ seen on the surface of almost all mucous membranes, being projections of all the elements of the mucous membrane, only on the tongue they are much larger. The villi of the intestines are similar to the papillæ of the tongue and have the same fundamental structure, but they are characterized by a cecal lacteal in their center, instead of presenting taste goblets or epithelial processes.

The appearance of the capillaries of the tongue is notable and characteristic, resembling a large oak-tree in the circumvallate, a smaller oak in the hemispheric, and a poplar tree in the conical.

That the whole tongue is formed of a solid mass of muscles is noteworthy, being covered only by a mucous membrane. We must also take notice that the tongue has intrinsic fibers. The stomach and the heart also present intrinsic fibers.

We must recall here the importance of that portion of the lingual artery which runs above the great horn of the hyoid bone and below the hypoglossal nerve, because that is where the artery is ligated whenever any operation on the tongue extends beyond the anterior half. It is also to be noted that when the two linguals are ligated simultaneously, as must be done when the operation extends beyond its posterior half on both sides, the organ does not slough although there is no anastomosis of any consequence with any other large artery, owing to the isolated condition of the tongue in the mouth. We can not here consider the anastomosis of the dorsal of the tongue with its fellow of the opposite side, because those arteries usually originate beyond the hyoid portion of the lingual. It is because the lingual arteries in their posterior half are large and, being deeply seated, are not easily secured in all operations of the posterior half, that the linguals must be ligated in their hyoid portions previous to operating on the posterior half of the tongue. We must notice also the rather serpentine course of the artery in the tongue, which enables it to accommodate itself to the numerous and various changes in the length of the organ. The cavernous arteries of the penis are also serpentine for the same reasons.

The superficial ranine vein is the only submucous vein visible to the naked eye and giving the membrane a bluish tinge. The lingual veins are interesting because they cross over the external carotid artery to reach the jugular, sometimes necessitating their section between two ligatures to make it possible to reach the artery underneath conveniently.

The tongue is the only organ presenting the three kinds of nerves, i. e., nerve of special sense, the gustatory, or lingual; nerve of ordinary sensation, the glossopharyngeal; and nerve of motion, the hypoglossal. We here recall that the gustatory is the only nerve of special sense originating in common with other nerves from the inferior maxillary, a compound nerve; also that it receives the peculiar cord of the tympanum from the facial, the only instance of a motor nerve anastomosing with a nerve of special sense. The termination of the filaments of the gustatory by hair cells into the taste goblets is seen only in the olfactory and the cochlear branch of the auditory. Finally, we must reremark that the gustatory is the only nerve of special sense that is a hard nerve, the others, the olfactory, the optic and the auditory, being remarkably soft nerves.

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SOME OF THE POSSIBILITIES AND LIMITATIONS OF THE *X*-RAYS AS A THERAPEUTIC AGENT *

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I wish to state, first of all, two self-evident propositions:

First: The administration of a therapeutic agent in a disease, the pathology of which is known, is attended with a greater or less degree of success, depending on the potency of this agent to remedy the pathological condition present.

Second: However potent an agent we may possess, for its use to be attended with the desired result, it must be applied in such dosage, with such frequency, and for so long a period as the pathology of the condition and the ends in view seem to require.

Mercury and iodin are the two remedies that are productive of more good in syphilis than all the other drugs of the Pharmacopeia. They were found to cause a disappearance of the manifestations of this disease long before its pathology or etiology was ascertained. Few patients, however, were permanently cured by these potent agents before there was some knowledge of the pathology of the disease and at least an idea of the causative factor in its production. With how much greater confidence do we administer these remedies now than formerly!

Having agents whose potency is established, we have but to apply them in proper dosage, with proper frequency, and for a sufficient period, and the cure is effected.

When the *x*-rays began to be experimented with in the treatment of disease, about 10 years ago, it was found out empirically that certain pathologic conditions were relieved by the application to the area involved, of this agent, for a greater or less length of time. Following this discovery, tissues were examined and the changes in them, produced by exposure to the light, were carefully studied. Gradually, from these investigations, the general principle was evolved, that in this new light, we had an agent that could be made to produce a variety of effects, depending on the method of application. Briefly, these effects on living matter may be said to be anesthetic, alterative, stimulant, and destructive. All the results so far obtained may be accounted for, I think, by one or more of these actions.

It has been ascertained that the radiant energy from the Crooke's tube is not homogeneous, but consists of

* Read at the Tri-State Medical Association of Virginia and the Carolinas, Charleston, S. C., February, 1909.

several kinds of rays, which possess different properties. Just as sunlight is composed of rays possessing different characteristics, *e. g.* red, the greatest heating, and violet, the greatest chemical properties, so in the *x*-rays, there is one ray which produces marked physiologic activity, while another shows greater penetrating qualities. Those which produce the greatest physiologic effect are the most readily absorbed by the skin, and possess the greatest therapeutic properties. The skin seems to filter out the major part of these rays, while the most penetrating, having very slight physiologic activity, are allowed to pass quite readily. This is evidenced by the facts that *x*-ray "burns" are confined to the skin and most superficial structures. By means of certain materials, *e. g.* aluminum and wet leather, interposed in the path of the rays, those which produce the so-called burn may be filtered out, with very slight obstruction to the penetrating rays; other substances, such as silver, are said to absorb the penetrating rays, while those affecting the skin are largely transmitted.

It is easy, therefore, to see the cause of failure in the treatment of deep-seated disease, whereas the same pathologic condition readily responds, if the lesion be superficial.

The time has passed when a Roentgenologist was justified in applying the rays to conditions, concerning the pathology of which he knew nothing. He would be equally as culpable as if he were to administer mercury and iodin under the same circumstances.

Considering that the effects produced by the *x*-rays depend in their nature on the quantity applied, the dosage must be suited to the effect that it is desired to produce.

Would anyone expect to cure a case of syphilis with 1/100 grain of bichlorid of mercury, daily for a week, or 5 grains three times a day for a month? Neither is any more absurd than to expect to produce a definite effect with an indefinite dose of the *x*-rays, and yet it is being done daily by many possessors of *x*-ray machines throughout the country. Since mercury and iodin are specifics for syphilis, does it follow that they must also be beneficial in diphtheria when administered in the same way? There are physicians who would resent the insinuation that they would be guilty of such folly as this, who are treating with the *x*-rays, almost any disease that happens to fall into their hands. Is it a wonder that failure is oftener than otherwise the result and a "black eye" given to *x*-rays and *x*-ray operators everywhere?

While there is yet no satisfactory unit of quantity by which the *x*-rays may be accurately measured, the time is not far distant when one will be established so that the dosage may be applied as so many *x*-ray units. There are certain factors that by proper regulation enable us to vary with a fair degree of accuracy, the output of a certain equipment, but there is no fixed rule that applies to all. Each set of apparatus is a law unto itself and its characteristics must be ascertained before this outfit can be intelligently employed. A little care in the use of a new equipment will enable the operator to determine the reaction point with that equipment working under the same circumstances, within the limits of a few minutes. From this he can easily compile a table for that apparatus that will guide him in the application of the rays to pathologic conditions.

To determine whether or not a condition will probably be benefited by *x*-ray treatment, it is only necessary to make mental application of the known effect of the *x*-rays to the pathologic condition present.

The rays manifest their effects on cells to an extent proportional to the resistance of the cells; different kinds possess this resistance in a widely different degree. It is on this fact that we rely to destroy malignant cells without causing a similar destruction of the normal. Epithelial cells are much more readily affected by the rays than those of connective tissue or muscle; glandular epithelium is especially susceptible, while fibrous tissue is very resistant.

From the foregoing we may conclude that: Those pathologic conditions which involve the epithelial structures may be influenced by the *x*-rays when sufficiently superficial to be reached by those which are active. Fibrous growths and lesions in which fibrous tissue involvement is largely present, are very slightly affected except by pushing the treatment to the point of "burning" when the effect is very similar to other cauterizing agents.

In accordance with the facts and theories, as given, it may be deduced:

First: Malignant disease, while yet local, may be treated with the assurance of good results, provided the lesion is in the skin or very near the surface, and the age of the patient or condition of the general health is not such as to render the reparative powers too low. The treatment of deep-seated primary cancers should never be undertaken except in inoperable cases, or when the patient will not consent to surgical procedure. In these cases it is best to remove the diseased parts as radically as possible, and if practicable, leave the wound open to be treated by the Roentgen method, and if necessary, resort to a second plastic operation to close it.

Second: Such skin diseases as involve the epithelial and glandular structures are more or less amenable to treatment. Those involving the fibrous tissue of the corium respond with great difficulty, or not at all.

Third: Glandular enlargements, so long as they are due to gland-cell hyperplasia, will be greatly benefited by *x*-ray treatment; when the hyperplasia involves the connective tissue element, very little result will ensue.

I trust the principles that I have attempted to bring out may serve to lessen the tendency to approach fakery that is sometimes too evident in *x*-ray operators, and especially to establish the fact that definite *x*-ray effects are due to definite *x*-ray causes, and that in the Roentgen rays, we have an agent, limited in its usefulness, but of maximum efficiency when confined within its proper scope.

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The Cranial and Facial Characteristics of the Neanderthal Race.—W. J. Sollas (Phil. Tr. Roy. Soc. Lond., 1908: Series B, cxcix, 281), has made further study on the Neanderthal race and its probable significance in the evolutionary history of man. The skull of the Neanderthal race possesses many features in common with certain flattened skulls met with in certain Southern Australian tribes; it differs in breadth, in the glabellar region, and in thickness. But the Neanderthal large orbits, projecting broad nose, retreating cheek bones, absence of depression beneath orbits, long face and low degree of prognathism are peculiar. The Neanderthal race and the Australian probably represent diverging branches of the same original stock. In regard to cranial capacity the two races are almost indentical—"the Neanderthal and the Pithecanthopus skulls stand like the piers of a ruined bridge which once continuously connected the kingdom of man with the rest of the animal world."

Special Article

TRAVEL NOTES

A PHYSICIAN'S HOLIDAY IN THE ENGADINE

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The words, St. Moritz in the Engadine, had been ringing in my ears ever since, as a young physician, I first read them in the *Medical Times and Gazette*, that excellent journal then published by the Churchills, but long since discontinued, while Ragatz and the equally cacophonious Pfäffers have been staring at me from the pages of text-books for so many years that I determined my next holiday should make me more familiar with this district. Landing at Antwerp, I could not resist the temptation to spend a day in beautiful Brussels, to peep again into Cologne Cathedral and repeat the Rhine trip, but by August 5 I was in Ragatz, whose waters have long had a reputation for the cure of a long list of maladies, including chronic rheumatism and gout, joint affections of traumatic origin, nervous diseases, including neurasthenia and neuritis, especially sciatic neuritis, diseases of the brain and spinal cord, gastric intestinal and bronchial catarrh, renal and bladder affections and diseases of women. The number is too many and varied to inspire confidence, although it is not unlikely that any one or all of these ills may be favorably influenced by the hydrotherapy here practiced, associated as it is with mechanotherapeutics by the Zanders' apparatus, scientific massage, electricity and various dietetic cures. Nor does the chemical composition of the thermal waters of Ragatz inspire more confidence, for although the ingredients are many they are not present in quantity sufficient to justify the term "mineral," since the water has a total of only three parts of solid matter in 10,000. The solids include iron, aluminium, calcium, strontium, barium, magnesium, potassium, sodium, lithium, ammonium, and numerous others, all in very minute proportions, not omitting radium, as attested by the attendant who showed me the baths. The most abundant constituent is carbonic acid, which is represented by one of the three parts. To this and to the temperature of the water may be due its efficiency. Its source is Pfäffers a couple of miles distant, where the water gushes out of the earth with a temperature of 98.6° F., whence it is piped down to Ragatz. A cure house was built at Pfäffers in 1242 by the abbots of Pfäffers, and remnants of it still remain. The present house was built in 1714, and is still a popular resort, although much shut in and therefore gloomy on other than bright days. The valley of the Tamina which connects the two health resorts of Ragatz and Pfäffers, widens out from the famous Tamina gorge into a broad valley, in which lies the pretty town of Ragatz, with its two large hotels, the Quellen hof and Hof Ragatz, with their extensive grounds, Cursalle, Casino, and baths, into which is poured an abundant supply of hot water from Pfäffers by the method above described.

There is nothing peculiar in the baths themselves. They are taken in porcelain lined tubs sunken below the floor, and are available not only on the grounds of the two great hotels, but as well at the cure house in the center of the town, where, too, the fine orchestra gives its concerts, alternating with those at the Casino on the hotel grounds. In the latter there is a large swimming pool. The popularity of the baths is attested by the annual visitation of 30,000 visitors, of whom presumably a number are tourists and observers. The season of Pfäffers is from June 1 to September 1; at Ragatz from May 1 to October 1. English visitors are more numerous early in the season. When I was there in early August there were a few of the latter, German and French being almost the only languages spoken. Numerous walks and drives, the ravishing music, and the grand mountain scenery made easily accessible by a funicular railroad make the two places most attractive residences for a time.

From Ragatz to St. Moritz, in the heart of the Engadine, is a four hours' journey over the Albula pass by the Rhaetian railroad in which scenery and marvelous construction vie with each other in absorbing the attention of the traveller. The railway climbs by many windings upward, until one is dizzy with the height, and a curious sensation in the ears when talking, and a feeling of nervousness indicate that the circulation is being influenced. It is, however, a matter of a few minutes only, for soon the descent is commenced, and as it is made more rapidly than the ascent, the equilibrium is soon re-established.

Almost every one forms a conception of a place of which he has heard much and looked forward to visiting, a picture generally quite erroneous. Such was my conception of St. Moritz. I had supposed that by stage one would travel slowly upward from the railroad station to an expanded plateau in the center of which would be a single or perhaps two hotels and a *Kursaal* where there were many invalids including consumptives, and that in winter this plateau was covered with snow. Instead I found many omnibuses at the station representing as many hotels. It is true we wound our way upward, passing several huge and luxuriously appointed hotels to our own, which was the highest in the *Dorf*, or village, not on a plateau, but on the mountain side. There are others equally large and sumptuous as well as many smaller hotels collected about the site of the springs or St. Moritz-Bad. This, at one time isolated from the *Dorf*, has become continuous by the hotels and shops lining the road down from the latter, the whole forming a handsome village of white houses over 6,000 feet above the sea—a village scattered over the hillside and around the lake, with a permanent population of several hundred and a summer population of as many thousands—but nowhere any evidence of patients or sick people. Instead are seen gaily dressed women and natty men, with here and there a man or woman more appropriately dressed for mountain climbing, armed with the familiar Alpine stock.

Not that there are no sick to be found here. They may be seen at the baths, none looking very ill, and apparently no consumptives at all. For what then do persons go to St. Moritz? The largest number doubtless for the bracing air and the delightful pastimes of golf, tennis, mountain climbing and walking. Moreover, the sick are not very sick. This was not only my conclusion in my daily visits to the baths, for I took them myself, but it was the testimony of the old *diener* who prepared the baths in the men's sections. When asked why they did not make use of the Zander and other more complicated apparatus for mechanotherapy and hydrotherapy, he replied that the invalids who came here were more especially those who needed rest and the simpler therapy of tub bathing in carbonated water as a sort of after-cure. Nor was there any specialized bathing as prescribed by physicians, such as douche and needle baths, but the bather himself gave directions as to the temperature and duration, perhaps after consultation with a physician.

The waters have as their distinctive constituents iron and carbonic acid. The former is easily recognized by the taste and constitutes the chief object for the internal use of the water by drinking. For bathing purposes, it is commonly used at a temperature of 28 Reaumer, 35 C. or 95 F. As to actual conditions for which the baths are taken, in addition to simple anemia, asthenia and weariness, chronic rheumatism and cardiac weakness are conspicuous. I can testify in my own case as to the rejuvenation which succeeded a course of ten baths at a temperature of 97 F. each of ten minutes' duration. The bathers rest quietly in the bath in order to permit the attachment to the skin of little bubbles of gas which arise in a shower of millions with the least movement. The skin is rendered visibly red by the attached bubbles which thus act as a gentle but widely diffused counterirritant.

As is usual in Europe, the baths are divided into first, second and third class, the only difference being in the appointments of the bath room. The first-class baths are provided with porcelain-lined tubs, the second class with tin-lined tubs and the third class with wooden tubs, all scrupulously clean and almost equally inviting. The first-class baths are provided, too, with warm towels, which are very agreeable.

Another health resort in the Engadine worthy of mention is Tarasp in the lower Engadine, which has received the appellation of the "Karlsbad of the Engadine," from the fact that the waters are of like composition, though cold instead of hot, and are used internally and externally for like purposes, viz., chronic gastric and intestinal catarrh, enlargement of the liver, gout, rheumatism and diabetes. Tarasp and Schultz-Tarasp in the near vicinity have the advantage of Karlsbad in the more bracing air, while they are at a disadvantage because of more limited choice of pleasurable diversion, exercise and diet. A medical friend who had taken the Karlsbad treatment took this year the Tarasp treatment with like beneficial results.

Where, then are the consumptive patients for whose treatment the Engadine has become so famous, and for whom I looked in vain at St. Moritz, and likewise at Pontresina and the adjacent Samaden? Davos Platz in the Davos valley 20 miles distant, has become the haven of consumptives. It, too, is 5,000 feet above the sea and well sheltered. Here the amusement as well as treatment of consumptives is provided in winter and summer in the well-appointed and sun-exposed sanatorium. Patients with allied and associated conditions, such as bronchial catarrh, pleurisy and its products, scrofuloses, nervous asthma and neurasthenia are received.

A few words in conclusion on the rare beauty of the Engadine. The word Engadine means the Valley of the Inn—the river Inn, which arises in the melting ice and snow of the Italian border and gathers strength and volume as it flows northward and eastward to Insbruck, the Tyrol and Danube into which it ultimately flows at Passau. At St. Moritz, 6,000 feet above the sea, it widens out into the beautiful azure Engadiner See, a lake about a mile long and a quarter of a mile wide, in which of a clear day one can see reflected the bordering Alpine peaks; over its surface move numerous and varied crafts, usually manned by Italian boatmen and propelled by sail and oar and freighted with pleasure seekers. From the porticos of the Engadiner Kulm Hotel a beautiful panorama of snow-capped peaks stretches away to the south and beyond. In midsummer the air is cool, sometimes almost too cool for comfort, but clear, invigorating and rejuvenating, and it is not surprising that summer after summer and even winter after winter the same families resort to St. Moritz for the bracing air and summer and winter sports. The valley is about 60 miles in length and includes the adjacent villages of Pontresina, Samaden, Cresta, Silva Plana, Sils and Maloja in the upper Engadine, and in the lower Engadine Tarasp and Schulz-Tarasp.

1506 Spruce Street.

Clinical Notes

RECOVERY FROM RUPTURE OF KIDNEY AND FRACTURE OF PELVIS

G. I. BAUMAN, M.D., AND W. E. LOWER, M.D.
CLEVELAND, OHIO

Patient.—A boy, aged 17, was first seen about 3 p. m. Nov. 3, 1908. He had been thrown and dragged some distance in a collision between his wagon and a street car.

Examination.—Patient had been given morphin, gr. ¼, and was resting quietly. He had no severe pain, breathing was regular; pulse was 88, regular, rhythmic, and of good volume. There were numerous skin abrasions over the lower back, left thigh and knee; none in left kidney region; some swelling was apparent just below the crest of the left ilium, which latter showed preternatural mobility, with crepitus and considerable pain on manipulation. Apparently there was a transverse fracture just below the crest. The patient was examined for other injuries but none was found. He had not voided urine so that diagnosis of injury in the urinary tract was held in abeyance. The left side of the pelvis was strapped, using gentle pressure, the intention being later to apply a plaster-of-Paris dressing.

Hospital History.—At 7:30 p. m. the patient was found in evident shock from hemorrhage. Pulse ranged from 120 to 140 and over, and was of very low volume and tension. There was anemia and there were also some signs of air hunger. He had voided four ounces of practically pure blood. The swelling over the ilium had increased and there was ecchymosis; there was also dulness in the lower left quadrant extending to the midline and above to the level of the umbilicus, no dulness was apparent in the right flank. Evidently there was a retroperitoneal collection of fluid. The abdomen was not distended. A direct transfusion and exploratory operation was considered but delayed as the pulse was improving slightly.

Treatment.—Infusion, bandaging of legs, elevation, ice-bag over ilium and morphin. At 3:30 a. m. the boy was found to be more anemic, pulse was very faint and there was considerable air hunger. He passed two ounces of practically pure blood. A blood transfusion was then done but very little blood passed. We considered the patient to be in too profund shock to warrant any operative interference and he was taken from the operating room in very serious condition. Continuous rectal saline solution apparently did some good as he slowly improved and after 11 a. m. the urine was clear. The area of dulness receded.

Subsequent History.—From this time on there was a steady improvement. The urine remained clear until November 8, when blood reappeared and continued almost constant in spite of various internal medication until November 18, when it permanently disappeared. The dulness in left lower quadrant had gradually receded but about November 20 a small tumor appeared in this region just to the left of the rectus and above Poupart's ligament. This was movable, dull, irreducible and rather tender. There was no dulness in the right flank. No important rise of temperature occurred, but the patient vomited twice on November 22 and did not seem so well. The tumor increased in size and on November 25 operation was decided on.

Operation.—An incision four inches long was made from the left anterior, superior, spinous process upward and outward to the costal margin. Incision into the peritoneum revealed a localized collection of clear straw-colored slightly urinous fluid which was drained off and an opening in the posterior parietal peritoneum was found; this was enlarged and in the cavity found there was considerable blood clot, brownish fluid and blood; this was evacuated and a large tear in the inner side of the lower pole of the kidney was found. It appeared to be filled with blood clot and to be in process of healing. The inner edge of the tear in the peritoneum was then stitched to the inner edge of the anterior incision in the peritoneum, thus closing off the peritoneal cavity; the retroperitoneal cavity was packed with iodoform gauze.

Postoperative History.—November 26, condition was good, pulse was 100; temperature 100. There was very free discharge. On November 27: Very free drainage. Part of packing was removed. All the gauze was removed November 30. Drainage was very free and assumed a decided urinous odor. Patient continued to improve. Some pus appeared in the discharge about December 2, but it gradually lessened in amount and on December 22 the patient went home with wound practically healed. There was a very slight discharge until about January 14, 1909, when the wound was entirely closed. The fractured pelvis gave no trouble; the scar is solid, the urine normal and the patient apparently well.

Delbet,[1] in a very thorough consideration of this subject, gave a complete résumé of the reported cases up to 1901. These consisted of 320 cases, divided as follows:

Recovery without surgical treatment	122 cases
Death without surgical treatment	105 cases
Recovery with operation, but without nephrectomy; incision and drainage	31 cases
Death after nephrotomy	2 cases
Recovery after nephrectomy	28 cases
Death after nephrectomy	10 cases

1. Delbet: Ann. des Maladies des Organes Genito-Urinaires, xix, 805-839.

There have been eight cases reported since 1901.

Including in the conservative treatment of these cases those in which there was no surgical interference and those in which simple incision and drainage was done, we get apparently the largest number of recoveries. However, the proper treatment in these cases is a disputed point, Keen[3] stating that in the most cases an exploratory operation should be done. In our opinion, death would have followed an immediate operation in our case, and it seems to us that no fixed rule should be laid down; each case should be treated on its own merits.

It should be borne in mind that only cases of subcutaneous rupture of the kidney are considered in these reports and remarks.

AN UNUSUAL RUPTURE OF THE UTERUS

H. P. BARTON, M.D. AND C. A. SMALLEY, M.D.
LOS ANGELES, CALIF.

Patient.—A woman, aged 35, was sent into the Clara Barton Hospital, Dec. 4, 1908, with the tentative diagnosis of ruptured ectopic pregnancy.

Condition on Admission.—When seen by us she was in a state of collapse with weak, thready, and intermittent pulse; rapid respiration, and a temperature of 98 F. She was not particularly anemic, however. Her abdomen was very much distended and she complained of pain over the enlarged uterus. No fetal heart could be heard and no movement of the child could be detected.

History.—The patient gave a history of an uneventful pregnancy of seven months duration. At about five months she began to notice fetal motion which continued irregularly up to her present illness. At 3 a. m., Wednesday, Dec. 2, 1908, she was taken with a sudden pain in the lower abdomen and collapsed. Since when she had noticed no fetal motion and her bowels had not acted. Her attending physician had treated her expectantly until a consultation had decided the presence of a surgical phase, and she was sent into the hospital for observation. Ectopic pregnancy was ruled out owing to the patient's history, and the normal, symmetrical enlargement of the uterus. Rupture of the uterus seemed most probable with rupture of some of the other viscera as a possible alternative. However, the fact that the woman was not in labor and had not been; had sustained no accidents, and had been perfectly well throughout her pregnancy made us hesitate in making a positive diagnosis.

Termination of Case.—It was clearly a surgical case, but the woman was practically moribund and operation was out of the question. Four hours later she died.

Autopsy.—The peritoneum showed signs of inflammation. About 500 c.c. of blood and exudate was taken from the pelvic cavity. The tubes were folded behind the uterus, enlarged and adherent and at the fundus the fetal head was protruding.

Careful questioning of the husband elicited the fact that the woman had had an instrumental delivery several years previous, after which she was ill for several weeks.

She probably then had a severe infection which produced the adherent tubes and the fixed uterus which the autopsy disclosed.

The cause of rupture was probably a degeneration of the uterine muscle, together with fixation of the uterus by inflammatory adhesions and a consequent inability of the womb to grow in the same ratio as did the fetus.

Rupture of the uterus under any circumstances is a rare accident of pregnancy. Authorities range in their statistics from 1 in 1,200 to 1 in 4,000 of cases of pregnancy.

Presumably, spontaneous rupture is so unusual that separate statistics of this condition were not given by the authorities consulted. When the site of rupture is considered the fundus is the rarest of all; and the time of rupture is almost invariably during labor. The causes of spontaneous rupture are: a previous endometritis, an atrophy or degeneration of the uterine muscle, a previous myomectomy or a Cesarean section.

447 South Olive Street.

2. Florchen-Beitr. z. klin. Chir., 1907, liv, 308: One case, incision, suture, drainage, recovery.
   Andrew: Lancet, 1907, p. 213: Two cases. Case 1, single kidney, death. Case 2, incision, drainage, recovery.
   Geauert, Kiel, 1901: One case, incision, drainage, recovery.
   Barclay: Louisville Month. Jour. Med. and Surg., January, 1907, p. 253. Four cases. Case 1, incision, drainage, recovery. Case 2, nephrectomy (also had ruptured colon and peritonitis), death. Case 3, nephrectomy (also had tuberculosis), death. Case 4, incision, drainage, death.
3. Annals of Surgery, 1896, xxiv, 138.

A CASE OF PURPURA

THEODORE C. MERRILL, M.D.
COLORADO, TEXAS

In the following case I have regarded the condition as a distinct malady for descriptive purposes, since hemorrhages were the dominating feature. Symptoms of slight fever and weakness seemed not causative, but natural results respectively of ferment in the ecchymoses and loss of blood.

Family History.—The patient's family consisted of father, mother and four children. The patient was the eldest child. The second child, aged 6½ years, had marked mitral insufficiency. The mother's pulse-rate was 90 and above. Otherwise the family was without abnormality, peculiarity of predisposition, or taint of previous disease.

Patient.—A boy, aged 8, first seen April 27, 1906. At this time the patient had frequent and severe hemorrhage from the nose, gums and palate. Blood exuded from the gums during sleep, soiling the pillow, and leaving small clots distributed generally over the mucous membrane of the mouth and pharynx. There were many ecchymoses in the skin without order as to distribution. The general condition was one of prostration. The temperature varied from subnormal to 100. The parents stated that the condition had been present in the spring, recurring at this period for the previous four years, and that it tended to spontaneous improvement as summer came on. No treatment seemed to have the slightest influence. There was no previous history of rheumatism, no apparent cause for scurvy, and no discoverable toxic influence. There was no pain, swelling, arthritis, diarrhea or constipation. Nervous symptoms and involvement of special senses were absent. The urinary apparatus and excretion were normal. Unfortunately, it was impossible to make blood examination. The coagulation period of the blood was normal. Hemorrhage was the dominating symptom; occurring frequently through the day from nose and mouth, it seemed to defy attempt at treatment. The slightest contusion in the cuticular tissues was followed by a large ecchymosis. Secondary infection and abscess formation, fortunately, did not occur.

Treatment.—This was necessarily directed first of all to control of hemorrhage. Nasal tampons and the use of various styptics gave results only after many trials and with much difficulty. General antiscorbutic diet was arranged. The patient was fed gelatin, but no gelatin injections were used. Various drugs were employed, Blaud's pill for anemia seeming to have a helpful influence in recovery from the hemorrhages. Calcium sulphid and hydrastis after a time seemed gradually to reduce the frequency and amount of the hemorrhages, and the patient was treated by them consistently and persistently. Adrenalin seemed without effect.

Course of Disease.—The patient gradually improved from April to November. In the following spring (1907) a slight

hemorrhage was treated promptly with calcium sulphid and hydrastis. The hemorrhages disappeared. Occasionally during the spring of 1907 there was a slight hemorrhage, which received the treatment mentioned, and yielded as stated. After the spring of 1907 there was no recurrence, and the patient presented the normal appearance of a healthy boy.

CONCLUSIONS

1. The condition was clearly not hemophilic.
2. The condition perhaps might be called a constitutional scurvy, as opposed to a dietetic scurvy; but if so, it was without the epiphyseal and other scorbutic characters.
3. It seemed certain that there were no rheumatic factors.
4. The absence of blood examination was a serious omission.
5. The unsolved question is: Was the disorder fundamentally due to hemic abnormality, vascular abnormality, or both?
6. Calcium sulphid and hydrastis apparently influenced the condition favorably.

POLYDACTYLISM EXTENDING THROUGH FIVE SUCCESSIVE GENERATIONS

A. G. BLODGETT, M.D.
WARE, MASS.

It has been my intention for years to report this case of an evident atavistic tendency as it is unique in character. Now that it reappears in the fifth successive generation it would seem to be proper that it be reported in order that it may go on record as an evident "freak" in Nature's law of hereditary descent.

Generation 1.—This malformation manifested itself in a single male, in a supernumerary thumb on the right hand and an additional finger on the outer side of the little finger of the left hand. This man lived to be 92 years of age and never married. He had evident pride in his multiplicity of members and bore the inconveniences with a commendable patience.

Generation 2.—His niece had a supernumerary finger on her left hand. She had it removed when a child.

Generation 3.—The grandnieces had each an additional finger on the left hand, but the parents had them removed when the children were infants.

Generation 4.—Of eight children in three families this peculiarity is present in only one, a girl, who had a supernumerary toe on the outer side of the little toe of the right foot, which I removed when she was six months old.

Generation 5.—In this generation, so far, there are three children, all in one family; in one only, a boy, is this hereditary peculiarity present; he has a superfluous toe.

In my opinion the woman of the second generation believed that her child or children would have this malformation, and the daughters both manifested it. The two sons did not, nor did their children after them.

Of the five children of the older of the two grandnieces but one, a girl, showed the family characteristic. She had never married. Her older sister married and only one of her three children, a boy, showed polydactylism.

The fear of this peculiarity runs through all the female members of each succeeding generation and a lively interest is manifested in each new comer. As a matter of fact, it has never shown itself outside of the females in any generation but the first and the fifth.

Is it the result of a strong maternal impression or a mere coincidence, or does it bear out the principle of atavism?

20 Park Street.

A NEW VAGINAL DOUCHE

GEORGE H. TUTTLE, M.D.
BOSTON

The device here described consists of a pear-shaped dilatable rubber bag perforated along the long axis of its fundus by forty small holes, and tapering at its neck so as to act under the influence of the downward pressure of the water in the vagina as a plug for the vulvar orifice. Its elasticity renders it adaptable to practically any size or shape of orifice, while its extreme flexibility prevents any harmful degree of pressure in the vagina. Being made from the finest rubber it is readily dilatable to more than twice its natural size. It serves as a simple attachment to any syringe being placed on the adult rectal nozzle, or may be attached to a bulbar nozzle of similar caliber, being secured by a piece of silk or soft string. These points are plainly shown in the illustrations.

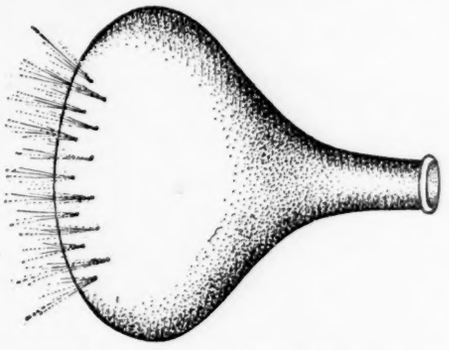

Fig. 1.—The dilatable rubber bag.

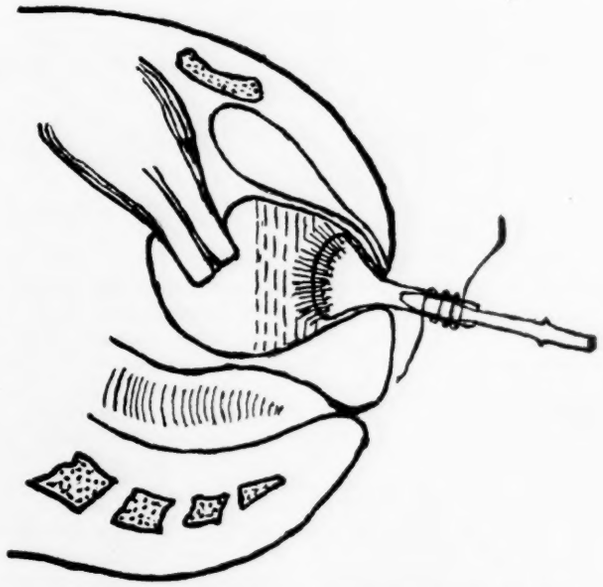

Fig. 2.—Diagrammatic representation of douche in use.

The amount of expansion of the douche bag is controlled entirely by the elevation of the reservoir. For a common douche, unless otherwise ordered, it is from three to four feet.

The douche bag may be made by traction to fit the vaginal outlet perfectly, or, as in the case of a long douche, may lie loosely, allowing water to flow in and out. A two-quart syringe bag is usually used, and at the end of the douche this is lowered, and the small bag collapses and falls out.

There are two uses for this device to give, (1) the regular warm water vaginal douche; (2) the medicated douche.

When used for a simple warm douche of short duration (from 3 to 5 minutes), it produces hyperemia, and by the longer douche (from 15 to 20 minutes), produces ischemia of the pelvic organs. By its use the application of warm or hot water is rendered accurate and scientific. By prescribing the duration and temperature of the douche it renders the result certain.

The medicated douche is made more effective by the dilatation of the vaginal mucous membranes, and the opening of the fold therein as the bag expands, and thus retains the solution in the vagina under pressure for any desired length of time. In gonorrheal vaginitis, a preliminary douche of 15 minutes, of simple hot water poultices the membranes and relieves pain, after which drug solutions may be applied to the thoroughly cleansed parts.

Lastly, this douche, or rather its sprinkle, is very gentle, as the pressure from the reservoir is held under control by the elasticity of the bag, and is finally divided into forty different parts represented by the separate streams.

Some advantages to the patient are: (1) In traveling, cumbrous douche apparatus need not be carried; (2) it is effective in the sitting as well as in the recumbent position; (3) No assistants are needed; (4) There is great saving in expense, the cost of the bag is inconsiderable; (5) Can be sterilized by boiling.

172 Tremont Street.

ACUTE PANCREATITIS DIAGNOSED DURING LIFE

FERDINAND SCHMITTER, M.D.
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Patient.—T. L., aged 31, a cook, Company C, Sixteenth Infantry, U. S. Army.

Complaint.—Rheumatism and ringworm.

History.—Family history was negative and his childhood was healthy. In the summer of 1898, at Manila, P. I., he had diarrhea lasting three months. There was no blood or mucous in stools. In December, 1898, he had biliary colic with jaundice lasting four weeks. In August, 1899, he had dengue and was ill for twelve days. In June, 1900, he had an attack of dysentery lasting three months, with blood and mucous in stools. In March, 1901, he began to have chills and fever which lasted until June, 1903, when sprue developed, lasting until August, 1903. In November, 1903, he had dhobie itch. January, 1905, "ringworm" (psoriasis) began and lasted until November, 1907. On April 15, 1908, he had gonorrhea and was in hospital for 24 days. In June, 1908, came the first attack of sciatica on the right side. This has annoyed him ever since, being better and worse at times. In August, 1908, psoriasis developed. From Oct. 1, to Oct. 21, 1908, the patient was on march and was troubled much by rheumatism and sciatica. On Oct. 22, 1908, he came on sick report, and a diagnosis was made of "psoriasis and sciatica on right side."

Present Illness.—On Oct. 31, 1908, at 3 a. m., the patient was suddenly awakened by a violent attack of orthopnea and dyspnea; he sat up in bed, grasping at the precordial region with both hands. He said that he could not lie down on account of difficult breathing and pain. His face was deepiy congested. At intervals he would get up and walk the floor, bent over with severe pains. He was nauseated but did not vomit. The pain extended from the left epigastrium to the heart and up to the left clavicular region. The man said that it was like a vise gripping his heart. He had collapse symptoms with rapid pulse, short respirations, and cold sweat. Temperature varied from 100 to 101 F.

Diagnosis.—The first diagnosis thought of was pulmonary embolism, but careful percussion and auscultation of the chest failed to support it. Gallstones, renal colic, gastric ulcer, appendicitis, and intestinal obstruction were easily eliminated. Tabetic crisis was reluctantly relinquished for want of support. The diagnosis was therefore narrowed down to angina pectoris and pancreatitis.

Course of Disease.—At 7 a. m. the patient got out of bed and said that the pain shot from his heart to his left jaw. It extended up the left neck muscles to the base of the skull. It was severe at the left clavicle, and made the jaws clamp as in tetanus. The jaws were not painful. Nitroglycerin and amylnitrite were used freely without effect. This weakened the probability of angina. Morphin was given frequently in ¼ grain doses and modified but did not relieve the pain. The stools showed nothing abnormal. Urine examination was negative.

Nov. 1, 1908: Symptoms continued about the same.

Nov. 2, 1908: A positive diagnosis of pancreatitis was made, on the strength of the sudden onset, anginoid pains, temperature range from 99 to 101 F., left epigastric tenderness, sciatica, nausea, shock and collapse. These, with the absence of any other positive symptoms, gave a pretty clear picture of pancreatitis. This diagnosis, although suspected from the first, was not made positive until now, after having read all the available literature.

Nov. 3, 1908: Symptoms continued.

Nov. 4, 1908: Patient consented to operation.

Operation.—A rectus incision was made about four inches long, one inch to left of the median line, above the umbilicus. The omentum was torn through in its thin part. The stomach and transverse colon coming into view were separated, and between them was seen something pulsating like an aneurism and oozing blood. To determine the pancreas the spleen was found. From this the tail of the pancreas was traced up to the pulsating body, which was a vascular, hemorrhagic and pulsating pancreas. On closer inspection, the lobulations could be seen. The organ was so vascular that no incisions were made for fear of dangerous hemorrhage. The omentum did not show any fat necrosis. The gall bladder and ducts were palpated and found negative. Rubber and gauze drains were applied to the pancreas, and the wound was closed with catgut and silkworm gut. Chloroform and ether were the anesthetics.

Postoperative History.—When the patient regained consciousness the symptoms were milder. There was a free flow of colorless fluid from the drain which wet the dressings and irritated the skin.

Nov. 5, 1908: The patient was a little better but still badly shocked.

Nov. 6, 1908: Dressings and drainage were changed. The psoriasis had improved. Other symptoms gradually improved.

Nov. 20, 1908: The temperature, which had varied from 99 to 101 F., reached normal and remained so.

Dec. 1, 1908: The pulse, which had been very rapid and weak at first and which ran about 100 a minute for three weeks, dropped to 78 a minute, and morphin which had been gradually decreased in amount was now discontinued.

Dec. 20, 1908: Sciatica troubled the patient. The psoriasis had disappeared.

Jan. 17, 1909: Patient was sent to duty, all symptoms gone.

Mar. 4, 1909: Patient has been well since but complains of sciatica as stormy weather is approaching.

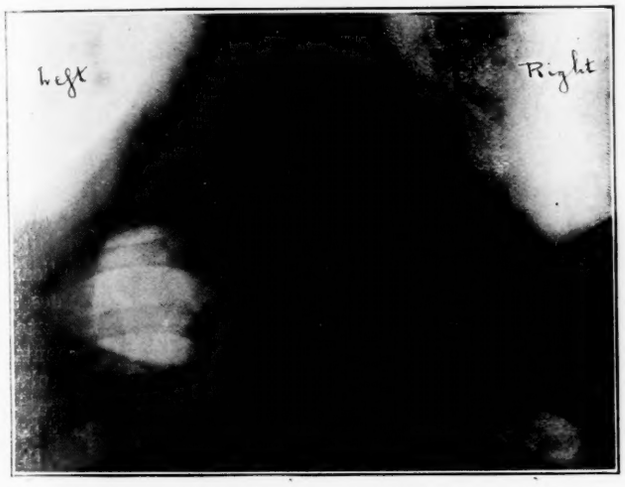
The interesting features of the case are: (1) the usual accompaniment of pancreatitis with previous biliary disease; (2) sciatica as one of the recognized symptoms of pancreatitis; (3) the disappearance of the psoriasis with the improvement of the pancreatic symptoms; (4) the anginoid character of the attack which makes one believe that in all unexplained anginoid attacks pancreatitis should be suspected; (5) the free use of morphin with favorable results, although some writers object to its use.

AN UNDEVELOPED FIRST DORSAL RIB SIMULATING A CERVICAL RIB

GEORGE F. THOMAS, PH.B., M.D.
Radiographer to Charity Hospital and Cleveland City Hospital
CLEVELAND, OHIO

The accompanying radiograph shows a rather unusual and interesting anomaly:

The patient, Van S., was a white man, aged 40. In the course of the routine physical examination there was discovered a hard immovable mass in the left supraclavicular space. It could be traced to the back of the neck and felt like a cervical rib. When the left shoulder was raised the mass disappeared behind the clavicle, showing that there was no attachment. There was no palpable difference between the right and left sides of the upper part of the sternum, except that the left clavicle seemed to be slightly lower than the right. The pulsation of the subclavian artery could be felt in the supraclavicular space and a soft thrill was palpable. The left radial pulse was not affected. The swelling apparently never caused symptoms. No other physical anomalies were discovered.



Undeveloped first dorsal rib simulating a cervical rib.

A similar case was reported by Dr. W. W. Keen.[1] Wiedersheim in the "Der Bau des Menschen" shows a drawing of another case of an undeveloped first rib and points out the tendency of evolution to a shortening of the thorax and a decrease in the number of thoracic ribs.

X-RAY IN ERYTHEMA MULTIFORME

W. S. LAIN, M.D., OKLAHOMA CITY, OKLA.

As the text-books on dermatology, so far as I am aware, do not mention the *x*-ray in treatment of erythema multiforme, this report may be of interest:

Mrs. O. was referred to me by another physician. She had been suffering for two weeks with a rather extreme case of erythema multiforme, involving the extensor surfaces of the fingers, the hands and the arms to the elbows. Many of the usual internal eliminants and local applications had been tried without any subsidence of the symptoms. I began the application of the *x*-ray on Jan. 23, 1909, and continued giving treatments, each ten minutes in length, on January 24, 25 and 28. By the last date the eruption had disappeared except for the brownish color. On February 10 there was a recurrence of all the former trouble at the same localities. I renewed the *x*-ray treatment on February 11, 12 and 13. All indications of the disease then ceased, and there has been no recurrence since. No other treatment was used except salines internally and plain gauze bandages moistened with calamine lotion externally, which had been used from the beginning.

1. Am. Jour. Med. Sc., February, 1907, p. 193.

Therapeutics

OTITIS MEDIA

In spite of the increased knowledge of the seriousness of any inflammation in the middle ear, and in spite of the increased tendency of middle-ear inflammations to cause mastoid trouble, since the influenza germ has been prevalent in this country the laity, and even (we regret to say) many physicians still neglect an ear inflammation. So much can be done in the incipiency of a middle-ear congestion, and evacuation of the primary exudate is so sure to prevent actual suppuration and serious trouble, that it is little less than astounding that the profession as a whole does not more strongly advocate, urge and carry out these preventive measures. It is also astonishing that mild inflammation in the middle ear, with more or less continuous discharge through a perforation in the drum, is allowed to become chronic without treatment and allowed perhaps to cause permanent deafness. Such neglect, it is also regrettable to say, occurs mostly in children too young to determine for themselves whether they will have permanent deafness the rest of their lives or be properly treated.

We insist to-day that every child should be vaccinated. There is plenty of agitation to prevent and control serious inflammations in the eyes of babies and children. There is gradually accumulating sufficient knowledge of the necessity for glasses for children with defective eyes. The seriousness of obstructive adenoid conditions in the nasopharynx is also being generally recognized. The necessity for fresh air and good hygiene for the prevention of tuberculosis is now most constantly in evidence. But an inflamed ear is very frequently, if it will only rupture, allowed to take care of itself. Nature's healing power often, fortunately, does effect a cure and the hearing is not impaired and serious middle-ear or mastoid trouble does not occur, but the chances of such a happy outcome are too uncertain and too precarious to be tolerated for one moment in this age of prophylaxis. As so aptly remarked by a surgeon of New York recently: Nature is working as hard to continue the growth of what we call pathogenic germs as she is to kill them and eradicate them for our health.

It is not the purpose of this article to advise exactly how an inflamed ear should be treated, as we believe that the average practitioner is not equipped to care properly for middle-ear inflammation, but we would urge the immediate reference of such inflammations to the ear specialist.

All kinds of bacteria may reach the middle ear, but the most frequent infections are the streptococcic and the pneumococcic. In a healthy ear the bacteria reach the tympanic cavity through the Eustachian tube, and this presupposes a nasopharyngeal infection and inflammation. Obstruction at the mouths of the Eustachian tubes, or swelling in the tubes, then inhibits the normal aëration of the tympanic chamber and predisposes to infection of the middle ear. Hence prophylaxis of middle-ear inflammations consists in the removal of obstructive adenoids in the nasopharynx, in the removal of obstructive hypertrophies of the nasal passages so as to cause proper nasal respiration and the correction, so far as possible, of nasal and nasopharyngeal chronic inflammations.

In acute inflammations of the nose and nasopharynx when the Eustachian tubes are likely to become obstructed and bacteria are likely to reach the middle ear, a proper cleansing of the nose and nasopharynx with

warm, mildly antiseptic and alkaline sprays and gargles is the proper treatment. Nasal douches as generally applied are likely to force fluid, pus and bacteria into the middle ear, and, in fact, a douche should never be taken through the nostrils with any but the most gentle pressure. Snuffing mild, warm, alkaline fluids through the nostrils, or gently spraying and then snuffing, or possibly the pouring of such a fluid from a spoon or small vial into the nostrils can do nothing but good and no harm to the Eustachian tubes. Or gentle spraying into the nasopharynx with such solutions or gargling and throwing the head forward so that the liquid washes the roof of the pharynx, will also remove products of inflammation, pus and mucus from these parts and from the mouths of the Eustachian tubes.

If middle-ear congestion occurs the diagnosis must be made as to whether serum or other fluid is present or not. If fluid is present, as shown by bulging of the tympanic membrane and by deafness, incision of the drum must be immediately made. If no fluid is present in the tympanic cavity, but the drum shows congestion and there is pain, the following ear drops may be used:

R.	gm. or c.c.		
Acidi borici	1		gr. xv
Glycerini	25	or	fl. ʒi
Aquæ q.s. ad	50		fl. ʒii

M. et Sig.: Warm, and pour half a teaspoonful into the ear once in three or four hours.

This fluid should be held in the ear a minute or two and then allowed to run out. The outer part of the canal is then gently dried with absorbent cotton and a plug of cotton left in the orifice.

If preferred, either of the following prescriptions may be used:

R.	gm. or c.c.		
Acidi borici	1		gr. xv
Tincturæ opii	5	or	fl. ʒiss
Glycerini	10		fl. ʒiii
Aquæ q.s. ad	25		fl. ʒi

M. et Sig.: Warm, and place a few drops in the ear every hour, if needed, and then plug with cotton.

Or:

R.	gm. or c.c.		
Adrenalin chloridi	03		gr. ss
Glycerini	20	or	fl. ʒv
Aquæ q.s. ad	50		fl. ʒii

M. et Sig.: Warm, and pour half a teaspoonful into the ear every three hours.

It should again be emphasized that treatment, even as simple as the above, should only be used to relieve congestion and pain, but such temporizing measures should not be used if the drum is bulging and there is liquid in the middle ear. The only treatment for this condition is incision.

Treatment after incision or after perforation of the drum, or of mastoid congestion, and of mastoid inflammation, belongs to the specialist. The restoration of a perfect drum and the recovery of perfect hearing after middle-ear disturbance, and especially after mastoid inflammation, marks a success as great as in any branch of medicine. The general physician's duty ends when he has referred a patient with either acute or chronic ear disturbance to the specialist, and after he has impressed on his patient that the time to prevent, if possible, deafness and the danger of a possible cerebral abscess is now. If the patient neglects his own treatment after warnings, he has only himself to thank, but let him never be allowed the opportunity to blame his physician.

INDICANURIA

The formation and absorption of intestinal toxins due to fermentation and putrefaction of maldigested foods, and largely, at least primarily, caused by a sluggish action of the bowels and consequent constipation is understood by all, but it is not frequently enough nor seriously enough considered as a cause of general bad feelings. These toxins doubtless vary in kind as well as in the symptoms which they cause. These symptoms may be headaches; disinclination to do mental work; sleeplessness, or sleep disturbed by dreams; coated tongue; loss of appetite; various kinds of neuralgias or joint pains; myalgias; muscular weakness or debility; a tendency to dry skin on the one hand, or to sweatings on the other; itchings; fornications; urticaria, and irritability of the bladder.

An indication of the intestinal condition can readily be obtained by an examination of the urine for indican, but this examination is too often omitted. There can be constipation without indicanuria, and there can be indicanuria when there are frequent movements of the bowels. It would seem, then, advisable to examine for indican the urine of patients who are vaguely miserable, or do not feel well, and yet have no tangible illness. A simple, easy office method is as follows:

Place in an ordinary test tube 1 c.c. (15 minims) of chloroform, then fill the test tube half full with equal parts of the urine to be tested and concentrated hydrochloric acid. To this add slowly, shaking meanwhile, the official solution of peroxid of hydrogen. If indican is present, the mixture more or less rapidly assumes a bluish color, which will be taken up by the chloroform, if the test tube is allowed to stand for a few moments, and show as a blue mass at the bottom of the test tube. The intensity of this blue color will denote approximately the amount of indican present. The bluer the chloroform segment in the test tube, the greater the amount of indican.

It is the liver which generally prevents both normal and abnormal products of digestion from reaching the general circulation in such form as to cause toxic irritations or poisonings. If the liver is repeatedly or continuously disturbed in its function by efforts to render innocuous an abnormal amount of these toxins it sooner or later becomes irritated and congested to the extent of doing this work imperfectly, and then these toxins reach the general circulation and cause symptoms.

Abnormal fermentation or putrefaction having been diagnosed as taking place in the intestines, the indications for treatment are, of course, calomel, at least once, followed by a saline, and the saline is perhaps well repeated on one or two successive mornings, or perhaps once a week for some time. The diet needs generally to be modified, and especially should meat be abstained from temporarily, or at least limited to once a day. Such restrictions of diet need not be long continued if there is no organic reason. Three small doses a day of salol (phenylis salicylas), each perhaps 0.30 gram (5 grains), will aid in inhibiting the fermentation in the intestines.

It has been noted that massage of the abdomen, especially of the liver, and electrical applications to the abdomen (Albert Abrams, *Medical Record,* April 25, 1908) will increase the amount of indican in the urine, if indican was previously present. This shows that the intestines and liver harbor indican. A day or two after such massage the urine, if the diet is corrected, will be free from indican.

New and Nonofficial Remedies

SINCE THE PUBLICATION OF THE BOOK "NEW AND NONOFFICIAL REMEDIES, 1909," THE FOLLOWING ARTICLES HAVE BEEN ACCEPTED BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION. THEIR ACCEPTANCE HAS BEEN BASED LARGELY ON EVIDENCE SUPPLIED BY THE MANUFACTURER OR HIS AGENT AND IN PART ON INVESTIGATION MADE BY OR UNDER THE DIRECTION OF THE COUNCIL. CRITICISMS AND CORRECTIONS TO AID IN THE REVISION OF THE MATTER BEFORE PUBLICATION IN THE BOOK ARE ASKED FOR.

THE COUNCIL DESIRES PHYSICIANS TO UNDERSTAND THAT THE ACCEPTANCE OF AN ARTICLE DOES NOT NECESSARILY MEAN A RECOMMENDATION, BUT THAT SO FAR AS KNOWN IT COMPLIES WITH THE RULES ADOPTED BY THE COUNCIL.

W. A. PUCKNER, SECRETARY.

(Continued from page 1258)

ENZYMOL.—A glycerin-aqueous acid extract prepared directly from the mucous membrane of the fresh animal stomach, free from alcohol, but containing a trace of thymol and having an acidity due to combined hydrochloric acid equivalent to 0.26 to 0.3 per cent. of actual hydrochloric acid. It contains no free hydrochloric acid, but does contain a slight excess of protein over that combined with the acid. It is adjusted to a definite proteolytic power and contains 25 per cent. of glycerin by weight.

Enzymol is a light straw-colored fluid.

The presence of proteins is shown by coagulation by heat or by the addition of alcohol. The proteolytic power when acidified and tested by the method of the U. S. P. for pepsin should be such that 4 Cc. will dissolve 800 Gm. of coagulated egg-albumin in two and one-half hours.

Action and Uses.—When applied to morbid tissues enzymol is said to have the power of dissolving them by its proteolytic action even without the addition of acid. It is said to dissolve necrotic bone, by virtue of the combined acid which it contains. Its physiologic action is said to cease in contact with living tissue.

Enzymol is said to be useful as an application to purulent and necrotic surfaces for the removal of the morbid materials.

Dosage.—It is made ready for use by the addition of one-half to one or two volumes of water; for the solution of necrotic and carious bone it may be applied undiluted.

Manufactured by Fairchild Bros. & Foster, New York. U. S. trademark No. 44,769.

SABROMIN — Dibrombehenate of Calcium. — Sabromin, $(C_{21}H_{41}Br_2COO)_2Ca = C_{44}H_{82}O_4Br_4Ca$, is the calcium salt of dibrombehenic acid.

It is prepared from erucic acid by the addition of bromine and transformation of the dibrombehenic acid thus obtained into the calcium salt.

Sabromin is a colorless, odorless and tasteless powder claimed to contain about 29 per cent. bromin and about 3.8 per cent. calcium. It is insoluble in water and alcohol, soluble in ether, acetone, benzol, ligroin and tetrachloride of carbon. On heating on platinum foil it is decomposed with liberation of bromine.

Tests: Sabromin is recognized by its solubilities and the liberation of bromine on heating.

Action and Uses.—Sabromin is converted into dibrombehenic acid in the stomach, a substance which is free from any action on that organ, but which is absorbed from the intestine. Its effect is less rapid than that of the bromides, but more prolonged. It is said to be devoid of the disadvantages of the bromides, such as their unpleasant taste, irritating action on the stomach, and systemic by-effects.

Sabromin is indicated in the same class of cases in which the bromides are useful.

Dosage.—The dose is about the same as that of potassium bromide.

Manufactured by Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany (Farbenfabriken of Elberfeld Co., New York). U. S. patent and trademark applied for.

AGARIC ACID—Acidum Agaricum.—Acidum Agaricinicum (Pharm. Helv., edit. 4.) Agaricinum[1] (Pharm. Danica, edit. 1907). A tribasic acid $C_{19}H_{36}OH\ (COOH)_3 + 1\frac{1}{2}H_2O$, derived from Polyporus officinalis, Fries (Order Hymenomycetes; fam. Polyporeæ) a fungus growing on the European Larch and other species of larch.

Agaric acid occurs as an odorless, tasteless, glistening microcrystalline powder, which melts at 141.5-142° C. (286.5-287.5° F.). When heated to a high temperature it is volatilized in the form of a white pungent vapor.

Agaric acid is slightly soluble in cold water; when heated with 50-100 parts of water, it becomes gelatinous and finally dissolves to a weakly acid solution, which possesses the characteristic property of foaming strongly when shaken. The addition of acids to hot aqueous solutions of agaric acid causes white flocculent precipitate, but a tannic acid solution (1:100) produces neither coloration nor turbidity. With alkalies agaric acid forms water soluble salts.

Agaric acid is slightly soluble in ether, chloroform, carbon-disulphide and in 130 parts 90 per cent. alcohol. It is soluble in hot acetic acid, acetic ether, oil of turpentine and in about 10 parts of alcohol.

If to a mixture of about 0.2 gm. of agaric acid with 3 Cc. of water 2 drops of alcoholic alpha-naphthol solution (1:8) are added and then gradually 5 Cc. of concentrated sulphuric acid added the mixture should not take on a marked blue-violet color.

If 0.10 gm. agaric acid be boiled with 10 Cc. dilute sulphuric acid a turbid solution results, from which on standing on a water bath, oily drops separate, and they crystallize on cooling.

0.1 gm. agaric acid upon ignition should leave no weighable residue.

Action and Uses.—Agaric acid is a local irritant and in large doses produces vomiting and purging and death through central paralysis. It paralyzes the peripheral nerves of the sweat glands, arresting the secretion of sweat. It is used to arrest colliquative sweats. The experience of most clinicians is favorable, but some report that they were unable to obtain any favorable effects. The action appears in a few hours and is not lasting. Agaric acid is one-twentieth as active as atropine and does not influence other secretions.

Dosage.—The maximal single dose of agaric acid should not exceed 0.03 gm. (½ grain) and the total daily dose should not exceed 0.10 gm. (1½ grains) (Pharm. Helv.). Owing to its irritant action it can not be given hypodermically.

CONIINE HYDROBROMIDE—Coniinæ Hydrobromidum.—The hydrobromide, $C_8H_{17}N.HBr$, of an alkaloid found in conium.

Coniine hydrobromide occurs as colorless, transparent, glistening rhombic crystals, or as a white crystalline powder, melting at 210-214° C. (410-417.2° F.). It is soluble in two parts of water, in three parts of alcohol, and in ether-alcohol, but insoluble in ether. The solutions are colorless and neutral. The salt contains 61.09 per cent. of coniine.

Evaporated with an excess of sulphuric acid, coniine hydrobromide becomes red, violet, blue and finally brown. An aqueous solution of the salt mixed with magnesium carbonate or oxide, and shaken with carbon bisulphide, colors the latter yellow. Addition of silver nitrate solution to a solution of coniine hydrobromide causes precipitation of yellow silver bromide; Mayer's reagent precipitates a reddish-brown body and tannic acid a yellowish-white compound. Coniine hydrobromide should burn when ignited, leaving no residue.

Action and Uses.—Coniine hydrobromide paralyzes the peripheral endings of the motor nerves, producing an ever-increasing muscle weakness. To a less degree it affects the sensory nerves, and with lethal doses consciousness is retained to the last. It probably depresses the spinal cord feebly and usually dilates the pupils. In lethal doses it lowers the temperature, but in therapeutic doses it is said to increase it, convulsions may appear and death results from paralysis of respiration.

Coniine hydrobromide may be used for the same purpose as conium. It has been tried in chorea, paralysis agitans, whooping cough, and is said to produce a condition of calm and relaxation in maniacal and hysterical excitement.

Dosage.—0.001-0.003 Gm. (1/60 to 1/20 grain) three times a day. Maximum single dose 0.005 Gm. (1/12 grain); maximum daily dose 0.015 Gm. (¼ grain). For hypodermic use a 5 per cent. solution is used.

ARTICLES ACCEPTED FOR N. N. R. APPENDIX

Sharp & Dohme, Baltimore, Md.

Compressed Tablets Anesthesin, 2½ grains.—Each tablet contains anesthesin in 0.162 Gm. (2½ grains).

Solution Atoxyl, 10% (Sterilized).—Each 100 Cc. contain: Atoxyl 10 Gm. (each fluidounce contains Atoxyl, 48 grains) dissolved in distilled water.

Solution Atoxyl, 10%, with Novocaine, 1% (Sterilized).—Each 100 Cc. contain: Atoxyl 10 Gm. and Novocaine 1 Gm. (each fluidounce contains Atoxyl, 48 grains and Novocaine 4 8/10 grains) dissolved in distilled water.

Compressed Tablets Atoxyl and Quinine Comp.—Each tablet contains: Atoxyl 0.01 Gm. (1/6 grain), Quinine hydrochlor. 0.022 Gm. (⅓ grain), Strych. nitrate 0.0043 Gm. (1-150 grain), Ferrous carbonate mass (Blaud) 0.162 Gm. (2½ grains).

Compressed Tablets Benzosol, 2½ grains.—Each tablet contains benzosol 0.162 Gm. (2½ grains).

Compressed Tablets Benzosol and Codein.—Each tablet contains: Codeine Sulph. 0.0054 Gm. (1/12 grain) and Benzosol 0.162 Gm. (2½ grains).

Compressed Tablet Blaud with Atoxyl.—Each tablet contains, Ferrous carb. mass (Blaud) 0.162 Gm. (2½ grains) and Atoxyl 0.022 Gm. (⅓ grain).

Compressed Tablets Pyramidon, 1½ gr.—Each tablet contains Pyramidon 0.097 Gm. (1½ grains).

Compressed Lozenges Orthoform, 1 gr.—Each Lozenge contains Orthoform 0.065 Gm. (1 grain).

(To be continued)

1. The substance commonly sold as agaricin is an impure alcoholic extract.

THE ATLANTIC CITY SESSION

AMERICAN MEDICAL ASSOCIATION, SIXTIETH ANNUAL SESSION, ATLANTIC CITY, JUNE 8-11, 1909.

OFFICIAL CALL

Sixtieth Annual Session of the American Medical Association, Atlantic City, N. J., June 8-11, 1909

The sixtieth annual session of the American Medical Association will be held on Tuesday, Wednesday, Thursday and Friday, June 8, 9, 10 and 11, 1909, at Atlantic City, N. J.

The House of Delegates will convene at 10 a. m., Monday, June 7. In the House, the representation of the various constituent associations for the years 1907, 1908 and 1909 is as follows:

Alabama	3	Nebraska	2
Arizona	1	New Hampshire	1
Arkansas	2	New Jersey	3
California	3	New Mexico	1
Colorado	2	New York	11
Connecticut	2	Nevada	1
Delaware	1	North Carolina	3
Dist. Columbia	1	North Dakota	1
Florida	1	Ohio	6
Georgia	2	Oklahoma	2
Hawaii	1	Oregon	1
Idaho	1	Pennsylvania	8
Illinois	7	Rhode Island	1
Indiana	4	South Carolina	2
Iowa	3	South Dakota	1
Kansas	3	Tennessee	2
Kentucky	3	Texas	5
Louisiana	2	Utah	1
Maine	1	Vermont	1
Maryland	2	Virginia	3
Massachusetts	6	Washington	1
Michigan	4	West Virginia	1
Minnesota	2	Wisconsin	3
Mississippi	2	Wyoming	1
Missouri	4	Philippine Islands	1
Montana	1		

The twelve sections of the American Medical Association, the Medical Department of the Army, the Medical Corps of the Navy and the Public Health and Marine-Hospital Service are entitled to one delegate each.

The General Meeting, which constitutes the opening exercises of the scientific functions of the Association, will be held at 10:30 a. m., Tuesday, June 8.

The Registration Department will be open from 8:30 a. m. until 5 p. m., on Monday, Tuesday, Wednesday and Thursday, June 7, 8, 9 and 10, and from 9 to 10 a. m., on Friday, June 11.

HERBERT L. BURRELL, President.

GEORGE H. SIMMONS, General Secretary.

HOUSE OF DELEGATES

Membership of the Legislative Body of the American Medical Association, 1909

As a number of the state associations have not yet held their meetings for 1909, it is impossible, at this time, to give a complete list of the members of the House of Delegates for the Atlantic City session. The following is a list of the holdover delegates and of the newly elected members who have been reported to THE JOURNAL up to the time of going to press:

ARKANSAS

C. C. Stephenson, Little Rock.

CALIFORNIA

O. D. Hamlin, Oakland.

COLORADO

Crum Epler, Pueblo.
Edward Jackson, Denver.

CONNECTICUT

Everett J. McKnight, Hartford.

DELAWARE

James H. Wilson, Dover.

DISTRICT OF COLUMBIA

G. Wythe Cook, Washington.

FLORIDA

J. Harris Pierpont, Pensacola.

IDAHO

E. W. Kleinman, Hailey.

ILLINOIS

R. T. Gillmore, Chicago.
J. F. Percy, Galesburg.
L. H. A. Nickerson, Quincy.
E. W. Weis, Ottawa.

INDIANA

W. N. Wishard, Indianapolis.
Edwin Walker, Evansville.
G. W. Thompson, Winamac.
Harry C. Sharp, Indianapolis.

IOWA

G. E. Crawford, Cedar Rapids.
M. J. Kenefick, Algona.

KANSAS

J. E. Sawtell, Kansas City.
Geo. E. Tooley, Washington.

KENTUCKY

L. S. McMurtry, Louisville.
W. W. Richmond, Clinton.
A. T. McCormack, Bowling Green.

LOUISIANA

Oscar Dowling, Shreveport.

MAINE

Eugene C. Holt, Portland.

MARYLAND

G. Lane Taneyhill, Baltimore.

MASSACHUSETTS

H. D. Arnold, Boston.
J. A. Gage, Lowell.
O. J. Brown, North Adams.
J. L. Morse, Boston.
R. P. M. Ames, Springfield.
C. E. Durant, Haverhill.

MICHIGAN

A. M. Hume, Owosso.
T. A. Felch, Ishpeming.
F. W. Robbins, Detroit.
S. C. Graves, Grand Rapids.

MINNESOTA

R. C. Dugan, Eyota.
Arthur Sweeney, St. Paul.

MISSISSIPPI

H. L. Sutherland, Rosedale.

MISSOURI

C. Lester Hall, Kansas City.
J. D. Griffith, Kansas City.

NEBRASKA

Harold Gifford, Omaha.

NEVADA

B. F. Cunningham, Reno.

NEW HAMPSHIRE

Wm. T. Smith, Hanover.

NEW JERSEY

Claudius R. P. Fisher, Bound Brook.
Frank D. Gray, Jersey City.
Luther M. Halsey, Williamstown.

NEW MEXICO

R. E. McBride, Las Cruces.

NEW YORK

E. B. Angell, Rochester.
J. C. Bierwirth, Brooklyn.
D. C. Moriarta, Saratoga.
Floyd M. Crandall, New York.
A. Vander Veer, Albany.
A. T. Bristow, Brooklyn.
Charles Jewett, Brooklyn.
W. S. Ely, Rochester.
E. H. Bartley, Brooklyn.
H. L. Elsner, Syracuse.
J. E. Sadlier, Poughkeepsie.

NORTH CAROLINA

J. F. Highsmith, Fayetteville.
H. T. Bahnson, Winston-Salem.
Albert Anderson, Raleigh.

OKLAHOMA

C. S. Bobo, Norman.

OREGON

Andrew C. Smith, Portland.

PENNSYLVANIA

Alexander R. Craig, Philadelphia.
Philip Y. Eisenberg, Norristown.
George W. Guthrie, Wilkes-Barre.
Edward B. Heckel, Pittsburg.
Thomas D. Davis, Pittsburg.
William L. Estes, South Bethlehem.
F. W. Frankhauser, Reading.
Samuel Wolfe, Philadelphia.

RHODE ISLAND

John Champlin, Westerly.

SOUTH CAROLINA

Walter Cheyne, Sumter.
R. S. Cathcart, Charleston.

SOUTH DAKOTA

R. D. Alway, Aberdeen.

TEXAS

C. E. Cantrell, Greenville.
S. T. Turner, El Paso.

UTAH

S. C. Baldwin, Salt Lake City.

VERMONT

J. N. Jenne, Burlington.

VIRGINIA

Wm. E. Anderson, Farmville.
J. Shelton Horsley, Richmond.

WASHINGTON

J. R. Yocum, Tacoma.

WEST VIRGINIA

O. F. Covert, Moundsville.

WISCONSIN

L. H. Pelton, Waupaca.
Karl Doege, Marshfield.
C. A. Richards, Rhinelander.

SECTION DELEGATES

PRACTICE OF MEDICINE

George Dock, Ann Arbor, Mich.

OBSTETRICS AND DISEASES OF WOMEN

J. H. Carstens, Detroit.

SURGERY AND ANATOMY

John T. Bottomley, Boston.

OPHTHALMOLOGY

T. A. Woodruff, Chicago.

LARYNGOLOGY AND OTOLOGY

H. W. Loeb, St. Louis.

NERVOUS AND MENTAL DISEASES

T. H. Weisenburg, Philadelphia.

STOMATOLOGY

G. V. I. Brown, Milwaukee, Wis.

CUTANEOUS MEDICINE AND SURGERY

R. R. Campbell, Chicago.

DISEASES OF CHILDREN

R. B. Gilbert, Louisville, Ky.

HYGIENE AND SANITARY SCIENCE

Clarence L. Wheaton, Chicago.

PHARMACOLOGY AND THERAPEUTICS

M. H. Fussell, Philadelphia.

PATHOLOGY AND PHYSIOLOGY

H. A. Christian, Boston.

REGISTRATION

The Registration Department will be on Young's Old Pier. It will be necessary for a member of the Association to register in order to obtain the official badge and program. No one will be admitted to any entertainment without a badge. Members are urged to register as soon as they can name their hotels.

The Registration Department will be open from 8:30 to 5 on Monday, Tuesday, Wednesday and Thursday, June 7, 8, 9 and 10, and from 9 to 10 a. m. on Friday, June 11.

Attention is called to the following directions:

1. Each physician desiring to register will first fill out a registration card.

2. Each member who has paid his annual dues in full will present his pocket card and registration card at a window marked "Registration by Receipt."

3. The registration of members who have paid their dues, but who have failed to bring their pocket cards, will be delayed while the records are consulted. Hence, be sure to bring your "pocket card."

4. Members who have not paid their dues will present registration card and make payment at a window marked "Cash."

5. Each applicant for membership will present his registration card at a window marked "New Members," with a certificate of membership in his state society. Prospective members, however, will save delay and annoyance by sending in their applications before the session. All such applications should be mailed to the American Medical Association, 103 Dearborn Avenue, Chicago, so as to arrive not later than May 25.

6. Each member on registration will receive a badge, a copy of the Official Program, and such other announcements as may be necessary.

RAILROAD RATES TO ATLANTIC CITY

Transportation Committee Announces Rate of One and a Half Fares for the Round Trip

The Transportation Committee announces that it has secured a rate of one and a half fares for the round trip to the Atlantic City session. Tickets are good to leave Atlantic City on the return trip up to June 19.

On a two cent basis, this rate is equivalent to the one fare rate on the old three cent basis. This rate applies to all parts of the United States, with the exception of the extreme western or Trans-Continental Passenger Association territory, for which a special rate has been made to the gate-ways of the Western Passenger Association territory, where the one and a half fare rate applies.

A special train (or more if necessary) has been arranged for from Chicago direct to Atlantic City, without change, via the Pennsylvania Lines. This is the only line reaching Atlantic City from the West without transferring and changing at Philadelphia. This train will leave Chicago Sunday, June 6, arriving at Atlantic City Monday, June 7.

A special train will be run by the Chicago & Alton from the West and Southwest, from Kansas City and St. Louis, and special sleepers by the Chicago, Milwaukee and St. Paul, from the Northwest to Chicago, connecting directly with the Pennsylvania Special, thus providing for all who wish the most direct routes and the best possible accommodations.

A stop over of ten days in Washington or Baltimore may be arranged for on the return trip, by requesting the same at the time ticket is purchased.

M. L. HARRIS, Chairman.

Other Trains

A special train will run from St. Louis Saturday, June 5, at noon, via the Big Four and the Chesapeake & Ohio Railways. Sunday will be spent at Hot Springs, Va. Special cars will connect with this train from Omaha, Kansas City, etc. Further details may be secured from Dr. Charles W. Fassett, St. Joseph, Mo.

Doubtless other trains will be arranged, of which we have received no notification.

LOCAL COMMITTEE ON ARRANGEMENTS

J. A. Joy, Chairman, 1920 Pacific Avenue.
E. J. Porteous, Secretary. E. H. Harvey, Treasurer.

COMMITTEE ON FINANCE.

W. B. Stewart, Chairman.
W. E. Darnall, George Scott, W. P. Conaway.

COMMITTEE ON HALLS AND MEETING PLACES.

Thomas G. Dunlap, Chairman.
E. E. Parker, W. M. Pollard, J. W. Snowball, Victor Metzler, A. B. Shimer.

COMMITTEE ON COMMERCIAL EXHIBITS.

Edward Guion, Chairman.
S. V. Clevenger, W. H. Walling.

COMMITTEE ON ENTERTAINMENT.

Emery Marvel, Chairman.
David Berner, F. W. Bennett, E. H. Harvey, B. R. Lee, David Jenifer, Victor Metzler, J. C. Marshall.

COMMITTEE ON PRINTING.

B. R. Lee, Chairman.
J. F. De Silver, W. P. Davis, Jay I. Durand, D. J. M. Miller.

COMMITTEE ON PROGRAM.

George Scott, Chairman.
J. C. Marshall, W. E. Darnall, Eugene Reed.

COMMITTEE ON BUREAU OF INFORMATION.

M. S. Ireland, Chairman.
J. C. MeVay, T. G. Dunlap, A. D. Cuskaden, Victor Metzler.

COMMITTEE ON BADGES.

E. C. Chew, Chairman.
A. E. Ewens, T. D. Taggart.

COMMITTEE ON REGISTRATION.

J. C. MeVay, Chairman.
E. H. Harvey, M. S. Ireland, G. W. Stimson.

COMMITTEE ON SCIENTIFIC EXHIBIT.

I. E. Leonard, Chairman.
C. Garrabrant, H. A. Doherty, W. M. Mason.

COMMITTEE ON HOTELS AND HEADQUARTERS.

William E. Jonah, Chairman.
George W. Stimson, A. L. Atherton.

COMMITTEE ON SECTION MEETINGS.

W. P. Conaway, Chairman.
E. H. Harvey, I. E. Leonard, A. E. Ewens, Daniel Jenifer, Stokes Doriss.

COMMITTEE ON SECTION ENTERTAINMENTS.

A. L. Atherton, Chairman.
G. W. Stimson, E. E. Parker, J. F. De Silver.

COMMITTEE ON ALUMNI ENTERTAINMENTS.

F. W. Bennett, Chairman.
C. M. Fish, J. C. Marshall.

COMMITTEE ON POSTOFFICE, TELEPHONE, ETC.

Samuel Barbash, W. A. Hickman, Daniel Jenifer.
Assistant Editor of Daily.—E. GUION.

COMMITTEE ON LADIES' ENTERTAINMENT.

Dr. Clara K. Bartlett, Chairman.

Mrs. A. L. Atherton, Mrs. F. W. Bennett, Mrs. E. C. Chew, Mrs. W. P. Conaway, Mrs. W. E. Darnall Mrs. Joseph F. De Silver, Mrs. T. G. Dunlap, Mrs. Edward Guion, Mrs. W. A. Hickman, Mrs. J. A. Joy, Mrs. I. E. Leonard, Mrs. J. C. Marshall, Mrs. Philip Marvel, Mrs. D. J. M. Miller, Mrs. W. M. Pollard, Mrs. T. K. Reed, Mrs. E. S. Sharpe, Mrs. George Scott, Dr. Mary E. Townsend, Mrs. William C. Westcott, Mrs. S. Barbash, Mrs. D. Berner, Mrs. S. V. Clevenger, Mrs. A. D. Cuskaden, Mrs. W. Price Davis, Mrs. H. Stokes Doriss, Mrs. C. Garrabrant, Mrs. E. H. Harvey, Mrs. M. L. Ireland, Mrs. H. R. Lawrence, Mrs. H. D. Marcus, Mrs. Emery Marvel, Mrs. J. C. MeVay, Mrs. James North, Mrs. E. J. Porteous, Miss Reiley, Mrs. M. L. Somers, Mrs. W. Blair Stewart, Mrs. W. H. Walling, Mrs. R. Woolbert.

ATLANTIC CITY HOTELS

A List of the Hotels, Showing Rates and Location

The list of hotels published in this issue for the session of the American Medical Association and affiliated societies at Atlantic City, N. J., is cordially commended to all those who attend. It is furnished by the Local Committee of Arrangements, and comprises those which are assisting the local committee in defraying the expenses and in doing the things necessary to be done for the success of the meetings.

Those going to Atlantic City should engage their accommodations in advance direct with the hotel selected. The earlier this is attended to the better.

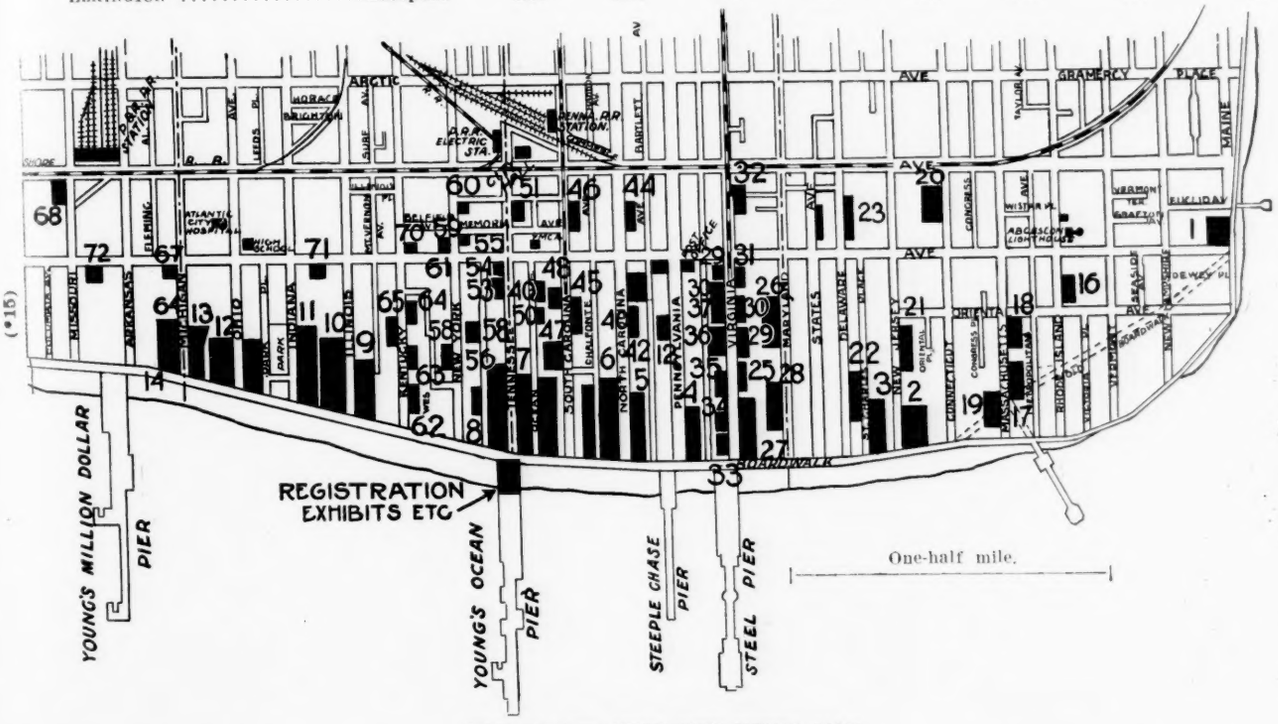
By securing hotel quarters well in advance there will be more satisfaction all around.

TABLE OF DAILY RATES AND ACCOMMODATIONS OFFERED BY ATLANTIC CITY HOTELS

		——Rooms Without Private Bath.——				————Rooms With Private Bath.——			
		For 1 Person.		For 2 Persons.		For 1 Person.		For 2 Persons.	
	Plan.	Single Room.	Double Room.	Double Room.	Extra Large Room.	Single Room.	Double Room.	Double Room.	Extra Large Room.
On the Boardwalk:									
ROYAL PALACE	American	$3.50	$4-5	$7.00	$8.00	$5.00	$6.00	$10.00	$12.00
RUDOLF	American	3.50	4.00	7.00	8.00	4.50	5.00	9.00	10.00
RUDOLF	European	2.00	2.50	3.50	4.50	2.50	3.50	4.00	6.00
ST. CHARLES	American	3-3.50	4-4.50	6.00	9.00	6.00	7-10	8.00	14.00
SEASIDE	American	3.50	4-5.00	7-8	...	5.00	6-7	10.00	12.00
HADDON HALL	American	3.50	5.00	6.00	8.00	6.00	7.00	10.00	12-16
CHALFONTE	American	3.50	4.50	6-7	8.00	...	6.00	10.00	12.00
POINSETTIA	European	1.50	2.00	3.00	4.00	2.50	3.50	4.00	5.00
YOUNG'S	European	1.50	2.00	3.00	3.50	2.50	3.00	4.00	5.00
WINDSOR	American	4.00	5.00	7.00	8.00	6.00	7.00	10.00	12.00
WINDSOR	European	2.00	3.00	4.00	5.00	4.00	5.00	6.00	7.00
TRAYMORE	American	4.00	6.00	8.00	9.00	5.00 to	13.00	10.00 to	16.00
BRIGHTON	American	4.00 to	7.00	8-12	12-16	6.50-9	...	11.00 to	18.00
MARLBOROUGH-BLENHEIM	American	4-6	5-7	8-10	9-11	6-8	7-9	10-12	12-20
MARLBOROUGH-BLENHEIM	European	2-4	3-5	4-6	5-7	4-6	5-7	6-8	8-16
DENNIS	American	4-5	...	7-8	...	6-8	...	9-12	...
SHELBURNE	American	4-5	8.00	8-9	10.00	6-7	10.00	10-12	15.00
SHELBURNE	European	2-3	4.00	4-5	6.00	4-5	6.00	6-8	10.00
CHELSEA	American	4.00	5.00	8.00	10.00	6.00	7.00	10.00	12.00
Rhode Island Avenue:									
WESTMONT	American	3.00	...	5.00	...	4.00	...	7.00	...
Massachusetts Avenue:									
LELANDE	American	2.50	3.00	5.00	6.00	4.00	4.00	8.00	8.00
LELANDE	European	1.00	1.25	1.75	2.25	2.50	3.00	4.00	4.00
PHILLIPS HOUSE	American	2.00	2.50	4.00	5.00	...	...	...	...
NEW AVALON	American	1.50	2.00	4.00	...	...	...	...	...
NEW AVALON	European	1.00	...						
Connecticut Avenue:									
TROXELL HALL	American	2.00	2.50	4.00	4.00	2.50	3.00	5.00	5.00
New Jersey Avenue:									
PIERREPONT	American	3.00	3.50	6.00	7.00	3.50	4.00	7.00	8.00
St. Charles Place:									
RALEIGH	American	3.00	...	5.00	6.00	4.00	...	7.00	8.00
Delaware Avenue:									
LEITH VILLA	American	1.25	1.50	2.50	3.50	...	...	...	...
States Avenue:									
THE HANLON	European	1.00	1.50	1.50	2.00	...	...	...	...
Maryland Avenue:									
IMPERIAL	American	1.50-2	2.50	3-4	5.00	3.00	3.50	5-6	7.00
IMPERIAL	European	1.00	1.50	1.50	2.00	2.00	...	3.00	...
Maryland Avenue:									
ALLENHURST	American	2-2.50	3.00	2.00	2.50	...	...	...	...
Virginia Avenue:									
ISLESWORTH	American	3.00	4.00	6.00	7.00	4.00	6.00	7.00	8.00
ISLESWORTH	European	2.00	3.50	4.00	5.00	3.50	4.00	5.00	6.00
PONCE DE LEON	American	2.50	3.00	5.00	6.00	3.50	4.50	6.00	7.00
PONCE DE LEON	European	1.00	1.50	2.00	3.00	2.00	3.00	3.00	4.00
AVON INN	American	2.50	3.50	4.00	6.00	3.00	5.00	6.00	8.00
AVON INN	European	1.00	2.00	4-5	4-5	...	...	3-3.50	6-7
BERKSHIRE INN	American	2-2.50	2-2.50	2-3	2-3	...	...	...	...
BERKSHIRE INN	European	1-1.50	1-1.50	1.50-1	1.50-1	...	...	...	...
VICTORIA	American	1.50	...	3.00	...	2.50	...	...	2.50
COLONADE	American	...	2.00	3.50	4.00	...	...	...	...
COLONADE	European	...	1.00	1.25	1.50	...	...	...	...
JACKSON	American	3-3.50	4.00	6-7	8.00	4.00	5.00	7-8	9.00
JACKSON	European	1.50-2	2.50	3-4	5.00	3.00	4.00	4-5	6.00
BOTHWELL	American	3.00	3.00	5.00	6.00	4.00	5.00	8.00	9.00
WILTSHIRE	American	2.50	4.00	5.00	7.00	5.00	7.00	8.00	10.00
MORTON	American	2.50-3	4-5	...	6.00	...	7-8	...	...
NEW BELMONT	American	2.00	2.50-3	3.50	4-4.50	2.50	3.50	6.00	7.00
NEW BELMONT	European	1.00	1.50	2.00	2.50	2.00	2.50	3.50	4.00
SHOREHAM	American	2.50	2.50	5.00	6.00	5.00	...	6.00	...
CLARENDON	American	2.00	2.50-3	4.00	5-5.50	3.00	3.50	6.00	6.50-7
SOTHERN		2.50	3.00	5.00	6.00	4.00	5.00	7.00	8.00
Pennsylvania Avenue:									
CRAIG HALL	American	2.50	...	5.00	5.00	3.00	...	6.00	6.00
NEW CHATHAM	American	2.50	3.00	4.00	...	...	4.00	6.00	...
ST. CLARE	American	2.50	3.00	5.00	6.00	3.50	4.00	7.00	8.00
HAMPTON TERRACE	American	2.50	...	4.00	5.00	...	...	...	...
North Carolina Avenue:									
PEMBROKE	American	1.00	1.00	2.00	2.50	...	...	...	...
PEMBROKE	European	.50	.50	1.00	1.50	...	...	...	...
COLONIAL	American	3.00	4.00	5.00	6.00	...	...	...	...
COLONIAL	European	2.00	2.50	3.00	4.00	...	...	...	...
South Carolina Avenue:									
ROXBOROUGH	American	2.00	...	4.00	...	...	...	...	...
ROXBOROUGH	European	1-1.50	...	2-3	...	...	...	...	...
LLOYD	American	1.50	2.00	3.00	3.00	...	...	...	...
LLOYD	European	1.00	1.25	2.00	2.00	...	...	...	...
IROQUOIS	American	2.50	3.00	4.00	5.00	3.00	3.50	6.00	7.00
IROQUOIS	European	1-1.50	1.50-2	2-2.50	2.50-3	2.00	2.50	3.00	4.00
RADNOR	American	1.50	2.00	3.00	...	...	...	...	...
RADNOR	European	.75	1.00	1.50	...	...	...	...	...
Ocean Avenue:									
BON AIR	American	1.50	...	3.00	...	...	...	...	...
RENOVO	American	2.00	...	3.00	...	...	...	...	...
Tennessee Avenue:									
CONTINENTAL	American	2.00	3.00	4.00	5.00	3.00	5.00	5.00	8.00
CONTINENTAL	European	1.00	1.50	2.00	2.50	2.00	3.00	3.00	4.00
FREDONIA	American	2.00	2.50	4.00	5.00	3.00	3.50	5.00	6.00
FREDONIA	European	1.00	1.50	2.00	3.00	2.00	2.50	3.00	4.00
HOWARD HOUSE	American	1.50	2.00	3.00	4.00	...	...	...	...
LOUVAN	American	1.50	...	3.00	...	...	...	...	...

TABLE OF DAILY RATES AND ACCOMMODATIONS OFFERED BY ATLANTIC CITY HOTELS—(Continued)

	Plan.	For 1 Person. Single Room.	Double Room.	Double Room.	Extra Large Room.	Single Room.	Double Room.	Double Room.	Extra Large Room.
BEAUMONT	American	1.50	3.00	3.00	4.00	...	...	...	...
WILSON	American	2.00	3.00	3.00	...	...	...	...	...
St. James Place:									
SEA CREST	American	2.00	3.00	4.00		3.00	4.00	5.00	...
SEA CREST	European	1.00	2.00	3.00	...	2.00	3.00	4.00	...
DE LA MAR	American	1.50	2.00	3.00	4.00	..	2.50	5.00	...
RALSTON	American	1.75	2.25	3.50	5.00	..	...	...	...
New York Avenue:									
MORRIS	American	2.00	2.50	4.00	5.00	..	3.00	5.00	5.00
MORRIS	European	1.00	1.50	2.00	2.50		1.75	2.50	2.50
BINGHAM	American	1.50	2.00	4.00	5.00	..	...	...	...
BINGHAM	European	1.00	...						
ROANOKE	American	2.00	2.50	3.50	4.50	.	...	...	...
ROANOKE	European	1.00	1.50	2.00	2.50	. .	...	...	...
HYGEIA	American	1.50	2.00	3.00	4.00	. .	...	...	...
HYGEIA	European	1.00	1.50	1.50	2.50	...	...	...	...
NETHERLAND	American	2.50	3.00	4.00	...	...	4.00	7.00	...
Kentucky Avenue:									
BRETTON HALL	American	2.00	2.50	3.00	4.00	...	...	...	...
BRETTON HALL	European	1.00	1.50	1.50	2.50	...	...	...	...
ACME	American	2.50	3.00	4.00	5.00	...	...	...	...
WESTMINSTER	American	2.00	...	3.00	4.00	...	...	...	...
WESTMINSTER	European	1.00	1.50	2.00	2.00	...	...	...	...
STICKNEY	American	2.00	2.50	4.00	5.00	3.00	4.00	6.00	...
STICKNEY	European	1.25	2.00	3.00	3.00	...	...	...	...
Michigan Avenue:									
PENNHURST	American	2.50	3.00	5.00	6.00	4.00	5.00	7.00	8.00
EDISON	American	2.00	2.50	4.00	4.00	3.00	3.00	5.00	5.00
EDISON	European	1.50	1.50	3.00	3.00	2.00	2.50	4.00	4.00
Missouri Avenue:									
SPEIDEL	American	2.00	2.00	4.00	4.00	...	...	...	...
Pacific Avenue:									
HALL'S (No. 1311)	American	2.00	2.50	4.00	5.00	...	...	...	...
HALL'S (No. 1311)	European	1.00	2.00	2.00	3.00	...	...	...	...
WITTIG'S (No. 1421)	European	1.00	...	1.50	...	...	...	...	...
MCCLELLAND'S (No. 1722)	American	175	3.00	4.00	4.50	...	...	...	...
MCCLELLAND'S (No. 1722)	European	1.00	200.	2.50	3.00	...	...	...	..
LEXINGTON	American	2.00	3.00	4.00	5.00	...	...	...	..
LEXINGTON	European	1.50	2.00	2.00	2.50	...	...	...	...



KEY TO ATLANTIC CITY HOTEL MAP.

ON THE BOARD WALK:
1. Royal Palace
2. Rudolf
3. St. Charles
4. Seaside House
5. Haddon Hall
6. Chalfonte
7. Poinsettia
8. Young's
9. Windsor
10. Traymore
11. Brighton
12. Marlborough-Blenheim
13. Dennis
14. Shelburne
*15. Chelsea. (Hotel is one-half mile down board walk from termination of map.)

RHODE ISLAND AVENUE:
16. Westmont

MASSACHUSETTS AVENUE:
17. Lelande
18. Phillips House
19. New Avalon

CONNECTICUT AVENUE:
20. Troxell Hall

NEW JERSEY AVENUE:
21. Pierrepont

ST. CHARLES PLACE:
22. Raleigh

DELAWARE AVENUE:
23. Leith Villa

STATES AVENUE:
24. Hanlon

MARYLAND AVENUE:
25. Imperial
26. Allenhurst

VIRGINIA AVENUE:
27. Islesworth
28. Ponce de Leon
29. Avon Inn
30. Berkshire Inn.
31. Victoria
32. Colonnade
33. Jackson
34. Bothwell
35. Wiltshire
36. Morton
37. Belmont
38. Shoreham
39. Clarendon

PENNSYLVANIA AVENUE:
40. Craig Hall
41. New Chatham
42. St. Clare
43. Hampton Terrace

NORTH CAROLINA AVENUE:
44. Pembroke

SOUTH CAROLINA AVENUE:
45. Roxborough
46. Lloyd
47. Iroquois
48. Radnor

OCEAN AVENUE:
49. Bon Air
50. Renovo

TENNESSEE AVENUE:
51. Continental
52. Fredonia
53. Howard House
54. Louvan
55. Beaumont

ST. JAMES PLACE:
56. De La Mar
57. Ralston

NEW YORK AVENUE:
58. Morris
59. Bingham
60. Roanoke
61. Hygeia

KENTUCKY AVENUE:
62. Bretton Hall
63. Acme
64. Westminster
65. Stickney

MICHIGAN AVENUE:
66. Pennhurst
67. Edison

MISSOURI AVENUE:
68. Speidel

PACIFIC AVENUE:
69. Hall's (No. 1311)
70. Wittig's (No. 1421)
71. McClelland's (No. 1722)
72. Lexington

THE MEETING PLACES

The following is a list of the various meeting-places arranged by the Local Committee of Arrangements at Atlantic City for the various meetings:

OPENING SESSION—(Tuesday at 10:30 a. m.), Auditorium, Young's New Pier.
HOUSE OF DELEGATES—Traymore Solarium.
BOARD OF TRUSTEES—Marlborough-Blenheim (Committee Room).
JUDICIAL COUNCIL—Marlborough-Blenheim.
PRACTICE OF MEDICINE—Marine Hall, Steel Pier.
SURGERY AND ANATOMY—Ocean Hall, Steel Pier.
OBSTETRICS AND DISEASES OF WOMEN—Casino Hall, Steel Pier.
DISEASES OF CHILDREN—First Presbyterian Church, Pacific and Pennsylvania Avenues.
NERVOUS AND MENTAL DISEASES—Brighton Casino.
PHARMACOLOGY AND THERAPEUTICS—Jewish Synagogue, Pacific and Pennsylvania Avenues.
HYGIENE AND SANITARY SCIENCE—Baptist Church, Pacific Avenue, near Pennsylvania Avenue.
PATHOLOGY AND PHYSIOLOGY—Central M. E. Church, 1213 Pacific Avenue.
OPHTHALMOLOGY—Parochial Hall No. 1, Top Floor, Tennessee and Pacific Avenues.
LARYNGOLOGY AND OTOLOGY—Parochial Hall No. 2, Second Floor, Tennessee and Pacific Avenues.
CUTANEOUS MEDICINE AND SURGERY—Olivet Church, Tennessee and Pacific Avenues.
STOMATOLOGY—Olivet Church Sunday School Room, Tennessee and Pacific Avenues.
REGISTRATION AND BUREAU OF INFORMATION—Young's Old Pier.
POSTOFFICE, TELEGRAPH AND TELEPHONE—Young's Old Pier.
COMMERCIAL AND SCIENTIFIC EXHIBITS—Young's Old Pier.
PRESIDENT'S RECEPTION—Wednesday night, Steel Pier.
LADIES' AFTERNOON TEA—Marlborough-Blenheim.

THE SCIENTIFIC EXHIBIT

Prospect of an Excellent Display—Announcement of Prizes to Be Awarded

The prospects for the Scientific Exhibit at the Atlantic City Session are most flattering. Generous contributions are already assured from Philadelphia, New York, Boston and other cities. To prospective exhibitors it may be said that as a rule serial exhibits, in illumination of some phase of pathology or experimental investigation, prove most instructive. On the other hand, however, very rare specimens of whatever sort are acceptable.

To stimulate wholesome competition the plan of a year ago will be followed of granting awards of honor to a few exhibitors presenting unusually meritorius work.

Diplomas of Honor.—To a very limited number of institutions or individuals presenting exhibits of superior merit, the committee on awards will grant illuminated diplomas bearing engravings of Harvey, Pasteur, Koch and Davis, formally signed by officials of the Association.

Gold Medals.—For the best exhibit of research work, and for the best tuberculosis exhibit.

The latter, however, must comply with the following requirements: (a) The exhibit must be comprehensive and complete in elucidating the whole tuberculosis problem, in a manner plain and convincing to the lay mind; covering the causation, nature, prevention and cure of the disease. (b) The exhibit must excel in stability, compactness and adaptability for installation in railway stations, postoffice buildings and public libraries. The usual tuberculosis exhibits are cumbersome and expensive to maintain. Necessarily they have only been presented in large cities, and then at long intervals and for brief periods. It is hoped to develop a model exhibit, which will occupy small space and can be maintained constantly at small expense by public health authorities in the public buildings of smaller cities.

FRANK B. WYNN, Director, Indianapolis.

ENTERTAINMENTS

The Usual Program of Entertainments Arranged for the Coming Session

The usual cordial hospitality of Atlantic City will be extended to the visiting physicians and the ladies who accompany them. The President's reception, the principal and most formal social function of the meeting, will be held Wednesday night on the Steel Pier. This is an opportunity for meeting the President, as well as the other officials of the Association, and, with its accompaniment of music and dancing, provides a most delightful relaxation from the study of medical subjects in the various section meetings during the day.

The Ladies' Afternoon Tea will be given this year at the Marlborough-Blenheim Hotel. Other events have been arranged for the entertainment of the ladies, in accordance with the custom of providing special attractions for the wives, daughters and other ladies who accompany members of the Association.

A complete and detailed list of entertainments provided is not yet ready for publication, but there will be no lack of entertainment of this sort at the coming session.

A number of the sections, as usual, will hold banquets on Tuesday evening. An announcement of these will be made later. Some sections will hold formal dinners and others will have informal smokers, in some cases different sections meeting together. The Section on Nervous and Mental Diseases will hold its dinner Tuesday evening at 7:30 at the Marlborough-Blenheim Hotel.

THE ORATIONS

New Arrangements for Presentation of the Annual Orations Before the Sections

By a change in the arrangements effective with the last session, the Oration on Medicine, the Oration on Surgery, and the Oration on State Medicine will not be delivered in the evenings, but will be delivered before the sections. These will be scheduled in the official program, so that all may make arrangements to hear these formal addresses.

The Oration on Medicine will be delivered by Dr. James B. McElroy, Memphis. The Oration on State Medicine will be delivered by Dr. John S. Fulton, Baltimore. The Oration on Surgery will be delivered by Dr. Harvey Cushing, Baltimore.

Excursions

Attendance at the annual session is always made an opportunity to combine pleasure and instruction. Many members have arranged side trips of various sorts, but no special endeavor has been made to record these. The Association has met three times before this in Atlantic City and members are somewhat familiar with the opportunities for side trips and excursions. The railroads are ready, as usual, to aid in the planning of these side trips.

Bureau of Information

A Bureau of Information will be maintained adjoining the Registration Bureau, on Young's Old Pier, where information with regard to hotels, transportation, registration, meeting places, exhibits, entertainments, etc., may be obtained. In connection with this bureau branch telegraph and telephone offices will be maintained.

Postoffice and Telegraph

Mail matter and telegrams may be addressed in care of the American Medical Association, Young's Old Pier, Atlantic City. They will be sent direct to the postoffice, which adjoins the Registration Bureau. Telegrams and special delivery letters will be forwarded from there to the hotels or other stopping places of those whose addresses are recorded at the Registration Department or the Bureau of Information. It is preferable, however, to arrange hotel accommodations in advance so that one's friends and business acquaintances may use the hotel address.

ATLANTIC CITY

The Next Meeting Place of the American Medical Association

JAMES NORTH, M.D., D.D.S.
ATLANTIC CITY

There is no city in the United States which possesses, for the medical practitioner, the varied charms of this "Queen City by the Sea," America's greatest pleasure and health resort, Atlantic City. Not that it is a great center of learning, with famous universities, colleges and hospitals; not that, from it radiates the teachings of world-famous masters of the healing art; nor that its soil holds the honored dust of the great disciples of Æsculapius. No, none of these, but a subtler, more indefinable charm that wooes the mind from the cares of life, and the exactions of the profession; a charm of unalloyed rest that engenders a strength and determination to return to one's duties and to live up to one's possibilities.

It is not alone the supposedly hopeless patients, who, mid its environments gain a new lease of life, that sound the praises of its invigorating, health-restoring climate; but the great multitude of overworked, nervous, broken-down human beings, who come as skeptics and go away believers, to whom a day, a week, a month gives new energy, new joy. To these ad! the millions who come for pleasure alone, and who take away with them, memories never to be forgotten, of joyous days and still more joyous nights.

It is no idle boast to say that, "Atlantic City is the greatest health and pleasure resort in the world," and in many respects the most unique and interesting. In this result, the medical profession has been the chief factor, not only in its conception but in its growth and popularity. From the inspiration of Dr. Jonathan Pitney of Absecon, who, back in the forties, saw with prophetic vision its possibilities and preached the evangel of this island of health, to the enthusiastic gatherings of the American Medical Association within its gates, is but a few score years; but that period contains the epitome of the city's fame, and of the splendid fidelity of the profession, that believed in it first, last and all the time.

In its many-sided variety, Atlantic City surpasses, in the charms of novelty and ever-shifting life, the most celebrated watering-places of either this country or of the old world, and above all, is the most cosmopolitan, the most democratic. Most generously favored by nature in its geographical situation, outside the earthquake, hurricane and tidal-wave zones; surrounded by the waters of the Atlantic Ocean, blessed with a climate of rare equability, 61 per cent. of sunshine and an annual average temperature of 52 degrees; bountifully supplied with pure spring water, which is pumped through eighty-two miles of mains into every building within its limits; protected as regards its sewerage of over sixty miles of pipes, with the most approved appliances and methods of modern science; well lighted; well paved; it enjoys not only superb physical advantages, but the no less important ones of up-to-date hygiene.

Absecon Beach, on which the city is built, is in very truth a gift of the sea, whose every incoming wage for ages past has deposited its tribute of glistening sand until an island

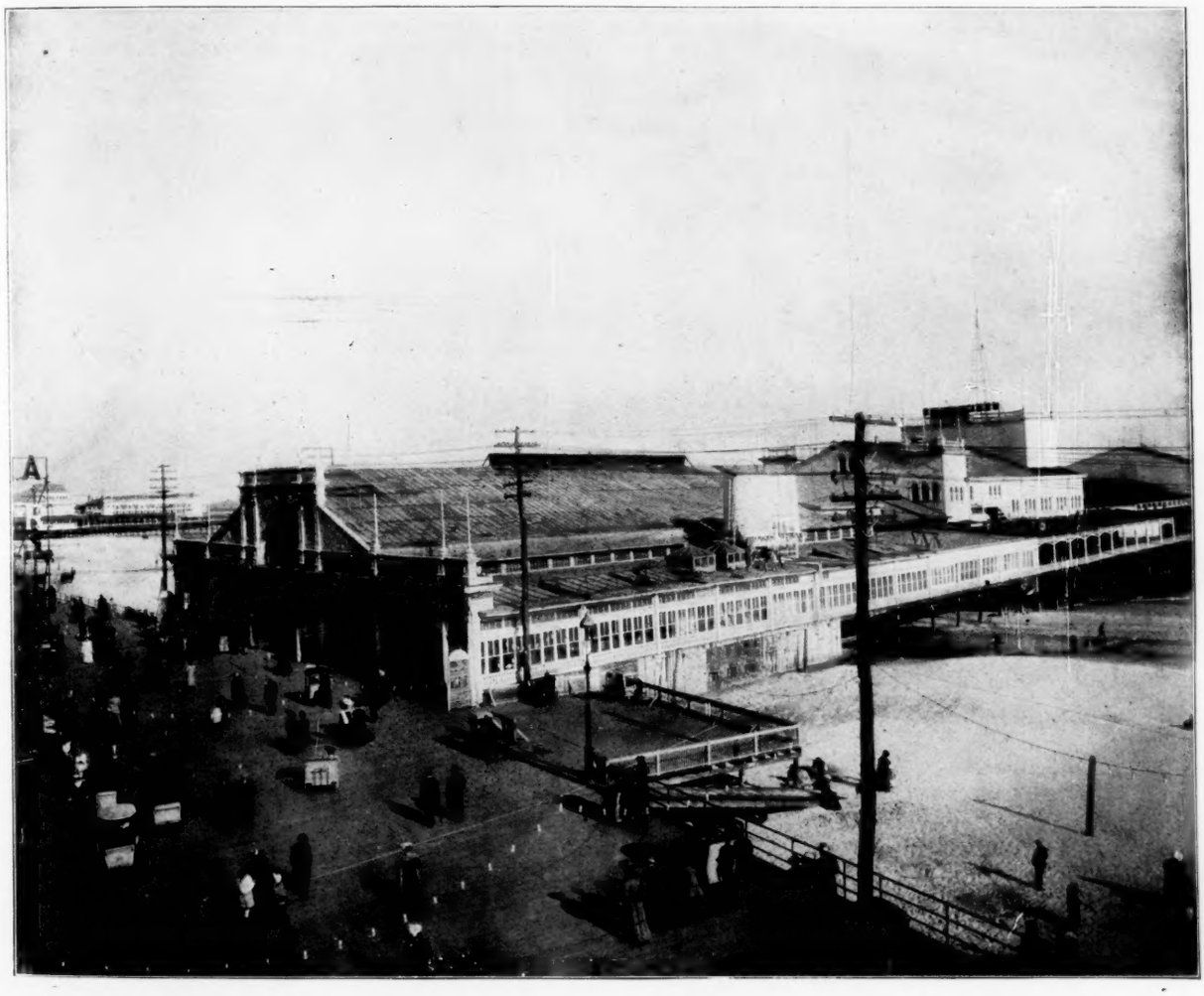


Fig. 2.—Young's Old Pier, containing Registration Bureau, Information Bureau, Scientific Exhibit, Commercial Exhibit, Telegraph and Telephone Booths, Branch Postoffice, etc. These illustrations are reproduced from copyrighted photographs kindly furnished by Harper B. Smith Co., photographers, Atlantic City.

ten miles long, from one-half to three-quarters of a mile wide, covering 5,575 acres, rises safe and secure above the tumbling combs of the ever-rolling surf. Extending nearly due east and west, it faces the south and catches the prevailing southwest breezes, fresh and cool from the ocean, through the long summer days and nights, while the inhabitants of the inland towns suffer from excessive heat. In winter, it lies exposed to the tempering rays of the sun and the warm currents of the Gulf Stream which lave its shores, making the temperature a number of degrees warmer than on the mainland seven miles away. Seaward, the waves stretch for three thousand miles or more to the shores of the eastern continents, while landward it is separated from the main shore of New Jersey by a wide thoroughfare, or channel, through which vessels pass and the salt tides ebb and flow ceaselessly.

Still beyond this is a great expanse, seven miles wide, of salt bays and meadow land, green in spring and red as a sunset sky in autumn, widening out to meet the uplands, whose vast forests of fragrant pine mingle their balsamic odors with the ocean's briny breath. The broad and shelving beach, "the world's playground," affords not only a safe, but the finest surf-bathing-ground in the world, on which it is no uncommon sight to see from forty to fifty thousand happy mortals disporting and revelling amid the tossing, cooling waves, or sitting and strolling on the clean white sand. Modern bathing establishments, where costumes and all conveniences are provided, render it possible for a hundred and fifty thousand persons to bathe during a day without crowding or discomfort. For the comfort and protection of this multitude, the city maintains a beach patrol of fifty-five trained men equipped with boats and life-saving apparatus, as well as a beach hospital under the direction of an able surgeon, though there is little demand for such services.

The open sea and many bays and inlets render sailing, fishing, crabbing and gunning delightful features of Atlantic City life. At the inlet a fleet of swift and safe pleasure yachts and steam launches—a hundred and fifty or more—are always in readiness to take visitors sailing on the smooth and quiet waters of the bays or out beyond the white capped breakers and beyond the sight of land. These boats are equipped with fishing-tackle and bait, and the skippers are familiar with the waters and the best fishing grounds along the coast. The ocean promenade, or Boardwalk, is peculiarly and distinctly an Atlantic City invention, or better, inspiration, and is known the wide world round. Here the idea originated, and from a few loose boards laid along the beach to keep the visitors from sinking in the soft sand, it has grown into its present proportions, seven miles long and at no point less than twenty feet wide.

It presents in all its length an unobstructed view of the strand and sea. This monument of municipal achievement cost some three hundred thousand dollars and is securely built on steel piling, elevated ten or fifteen feet above the strand and is brilliantly lighted every night in the year by myriads of incandescent electric lights, festooned above. Arrangements are about completed to extend the walk to Longport, the extreme end of the island, which will give it a total length of ten miles, the most complete, most beautiful and grandest walk on earth. The walk is lined on the inside with hundreds of stores, shops and bazaars stacked with the richest wares from all quarters of the globe; Oriental porcelains and rugs; Italian mosaics and statuary; French jewelry and gowns; English, German, Russian and Scandinavian art works; Mexican and Indian handiwork—in fact, no nation of the world but contributes to the innumerable beautiful and useful articles here displayed to the best advantage.

Fig. 3.—Atlantic Yacht Club.

On this promenade in the eventide of spring and summer march and countermarch the most cosmopolitan, the most fashionable throng to be seen anywhere. Here, beneath the glow of the festooned lights, mid the enchanting strains of music wafted from the crowded and brilliantly lighted piers, garbed in the colors of the rainbow, joyous and happy with

laughter and jest, this human garland of health and beauty stretches itself along the walk to admire and be admired.

On Easter Sunday the display of rich and fashionable gowns and beautiful millinery is unsurpassed, even in the Bois de Boulogne of Paris, or Rotten Row in London.

An advantage possessed by Atlantic City over her sister cities, is her permanence. The resident population is now over 45,000; it is doubling every ten years, and developing wide-awake business men who, by their energy and foresight, are striving to make this, not only the most popular, but the most beautiful of seaside cities, a consummation soon to be realized, if the plans adopted are worked out. The ever increasing number of wealthy and intellectual residents is forming a social community which adds its charm to those who enjoy an atmosphere of education and refinement, while the transient sojourners, in some years numbering ten millions or more from all lands of the earth, gives it a truly cosmopolitan coloring that might be envied by older cities of Continental Europe. With a municipal government, interested in the comfort and welfare of all who visit the city, there is an efficient police force for the preservation of order, a competent lifeguard of selected men to look after the bathers; an excellent paid fire department, well-manned and well-equipped with the most improved fire-fighting apparatus; and a well-organized Publicity Bureau to answer every question and to tell a thousand interesting things, which this short article can not undertake.

Fig. 4.—Easter Parade on the Board Walk, April 11, 1909, showing also Hotel Chalfonte, headquarters for the Section on Surgery and Anatomy.

Electric lights at night on all the streets make this one of the best-lighted cities in the country and as safe for visitors as by daylight. Electric cars run the whole length of the island and from the beach to the mainland, giving opportunity for cheap trolley rides of many miles, while busses and other vehicles are to be found at all points.

There are over sixty miles of broad avenues, paved with asphalt, bitulithic, brick and wooden blocks, delightful for carriage and automobile rides, which are kept clean and in good repair, and in the summer are well sprinkled daily. The streets are regularly laid out at right angles, and lined with buildings great and small that present the greatest and most pleasing variety of architecture imaginable. Over ten thousand buildings grace the streets, one thousand of which are hotels ranging from the great beach-front houses which cost millions to erect, and which are capable of accommodating a thousand or more guests at one time, in all the comfort and luxury obtainable in the great metropolis of the world, to the modest boarding houses, homelike and inexpensive. There are five national banks and three trust companies, the deposits in which amount to $10,000,000 at the height of the season; thirty-three churches of all demominations; twelve public school buildings; a public library, five theaters, five ocean piers, extending into the sea from one thousand to two thousand eight hundred and four feet, two city hospitals, a lighthouse one hundred and sixty-seven feet high, the light of which is visible nineteen miles at sea, a postoffice where the sale of stamps alone amounts to over two hundred thousand dollars annually, seven newspapers, three daily and four weekly, one of the finest golf courses in the country, eight holes 6,000 yards, a wireless station, and everything else that adds to the pleasure and comfort of man.

Railroad facilities constitute a most important factor in the development of every city and in that respect Atlantic City is especially favored. With two third-rail electric roads, two double-tracked steam lines to Philadelphia, and two to New York, the city is brought into immediate rail connection with the 35,000,000 people who reside within a radius of five hundred miles from the city hall, about 10,000,000 of whom visit Atlantic City annually. The nine fastest trains in the world run to and from Atlantic City and cover the distance of sixty miles to Philadelphia in less than an hour and to New York City in three hours; in all respects, luxury,

comfort, speed and safety—the most complete system to be found anywhere.

The amusements are many and varied. Horse shows at which the finest stables of the country are represented; dog shows, with canines from the best kennels; baseball and golf contests, yacht races, carnivals, etc. Excellent dramatic and musical entertainments claim the attention of visitors; five theaters cater to the public and the best companies—dramatic and operatic—appear on their boards. In fact, it is quite the vogue to make Atlantic City the place for the premier performances of new plays, many having phenomenal success in the great cities were successfully launched here. Balls on the piers and at the hotels, as well as orchestra and band concerts, are of nightly occurrence; in fact, there is not a minute of the day or night that may not be filled with mirth and enjoyment. The larger hotels maintain ex ellent orchestras throughout the season, and at the piers and casino they perform the year round.

City lies at least twenty miles east, the farthest point out, in a southeasterly direction and nearest the Gulf Stream, which approaches at that point within thirty miles. The effect of this great ocean currer. on the climate of Atlantic City is most apparent, making it similar and in many respects like that of Ireland and parts of England, save the moisture, which is here at the minimum, the average rainfall being about 51 inches and the average temperature 51.6 degrees.

The soil is sandy and porous, readily and quickly absorbing what little fog and dew falls, as well as the slight snowfalls which rarely last long enough for a good day's sleighing, while mud is something almost unknown, as the heaviest rains disappear like magic. The city water is pumped from artesian wells; some of the larger hotels supply their own water from a stratum 900 feet deep, and from the mainland out of the primitive cedar forests. It is clear and remarkably free from impurities, the total dissolved solids are equivalent to less than two grains per gallon in the cedar water, and three

Fig. 5.—Scene on the Board Walk in January, showing in the foreground Hotel Traymore, headquarters for the Section on Diseases of Children; in the center, the Brighton Casino, meeting place for the Section on Nervous and Mental Diseases and beyond, with the dome, the Marlborough-Blenheim, the general headquarters.

The rolling chair has become a permanent feature of the walk; not only invalids patronize them, but the well and strong indulge in the exhilarating pastime, and the floral parades, in which the chairs are decked with the most beautiful of flowers and gorgeous streamers, are sights well worth seeing. It takes the memories of the aged back to the days of Bath, when the beaux and belles of England rode in their sedan chairs; while the younger generations are reminded of the carnivals of the lands of flowers.

Atlantic City is the health resort par excellence of the east. The general direction of all the islands of the coast is from southwest to northwest, save Absecon Beach, which runs more to the west, facing nearly to the south. If a line be drawn from Irvington-on-the-Hudson to Cape May, giving the general trend of the coast, it will be seen that Atlantic

grains in the artesian well water. The cedar forest water has long been noted for its medicinal, healt.-giving properties, and long before the discovery by the Spaniards, the aborigines drank from the springs and bathed in the streams of these self-same waters. Somewhere among them was the fabled fountain of life, sought so ardently by Ponce de Leon, the drinking of whose waters endowed the drinker with perpetual youth. While great stress should not be placed on this legend, the longevity of the natives of the cedar forests and pine belt of southern New Jersey is surprisingly great.

The reputation Atlantic City is gaining as a convention city is becoming world wide. Its central location and proximity to the great cities of the east and middle west, with its excellent train connections and all the advantages heretofore mentioned, bids fair to place it first in this respect. It now

averages over one hundred important state and national conventions annually.

The prevailing winds are from the southwest and in their passage over the wide expanse of ocean are purified and laden with ozone, which strengthens the vital processes and stimulates the nervous system. This is the paradise for patients suffering from functional disturbances, nervous prostration, overwork of either mind or body, depression, indigestion, insomnia or torpid states of the system, convalescents from whatever disease—in fact, invalids needing change of climate and the peculiar benefits of this, the most healthful spot on earth. The personal testimony of thousands of physicians all over the world, who have visited and sent their patients here, and still better, the corroboration of the tens of thousands of patients themselves, living examples of the assertions herein set forth, will be most conclusive to the worried, overtaxed physician who is baffled in his treatment of such patients, and the sufferers themselves, whose pain and discomfort is so miraculously relieved by the balmy air and the ideal environments of this Queen City by the Sea.

SECTION ON PRACTICE OF MEDICINE

CHAIRMAN, JOSEPH L. MILLER, CHICAGO; SECRETARY, WILDER TILESTON, BOSTON.

Medical Supervision of Boarding Schools and of Athletic Contests Among School Boys (10 minutes). Nathaniel Bowditch Potter, New York.

An Experimental Study of Gastric Tetany (15 minutes). W. G. MacCallum, Baltimore.

Chronic Infectious Endocarditis (15 minutes). Frank Billings, Chicago.

Diverticulum of the Pylorus (5 minutes). Allen A. Jones, Buffalo.

Cardiac and Vascular Complications in Pneumonia with Special Reference to Treatment (15 minutes). Frederick Forchheimer, Cincinnati.

Clinical Significance of Indicanuria (10 minutes). Judson Daland, Philadelphia.

The Diagnostic Value and Limitations of Analysis of the Gastric Contents (15 minutes). Charles G. Stockton, Buffalo.

X-Ray Evidence in Gastric Cancer (15 minutes). A. W. Crane, Kalamazoo, Mich.

Fig. 6.—View of the Board Walk and the strand, showing hotels from left to right: Shelburne, Dennis, Marlborough-Blenheim and Traymore.

SECTION PROGRAMS

The following is a partial list of titles of papers to be read before the various sections. The order here is not necessarily the order which will be followed in the Official Program. This Official Program will be similar to those issued in previous years, and will contain the final program of each section, with abstracts of the papers, lists of committees, programs of the General Meetings and of the meetings of the House of Delegates, lists of entertainments, map of Atlantic City, etc. To prevent misunderstandings and to protect the interests of advertisers, etc., it is here announced that this Official Program will contain no advertisements. It is copyrighted by the American Medical Association and will not be distributed before the session. A copy will be given to each member on registration.

The Diagnostic Importance of Examination of the Feces (15 minutes). Charles P. Emerson, Clifton Springs, N. Y.

The Diagnostic Value of Stained Specimens of Stools in Cancer of the Stomach (5 minutes). Philip King Brown, San Francisco.

Resorption of Proteids, Carbohydrates and Fats in the Chronic Alcoholic (15 minutes). Alexander Lambert, New York.

The Determination of Trypsin in the Stomach Contents After the Oil Test Meal (10 minutes). Clifford B. Farr, Philadelphia.

Oration in Medicine: Tropical Diseases, America's Opportunities and Obligations. James B. McElroy, Memphis.

Transmission of Malarial Fever in the Canal Zone by Anopheles Mosquitoes (15 minutes). Samuel T. Darling, Ancon, Canal Zone, Panama.

The Present Status of the Serum Treatment of Epidemic Cerebrospinal Meningitis (15 minutes). Simon Flexner, New York.

The Retention of Alkali by the Kidney, with Special Reference to Acidosis (15 minutes). Herman M. Adler and Gerald Blake, Boston.

Amebic Dysentery (15 minutes). Sidney K. Simon, New Orleans.

The Association of Aortic Insufficiency with Syphilitic Aortitis (10 minutes). Warfield T. Longcope, Philadelphia.

Clinical Value of Recent Studies in Experimental Nephritis (15 minutes). Henry A. Christian, Boston.

Hypertension in Nephritis; Its Cause and Treatment (15 minutes). John H. Musser, Philadelphia.

The Value and Limitations of Salt-Free Diet and Restriction of Fluid in Nephritis (15 minutes). Victor C. Vaughan, Ann Arbor, Mich.

The Management of Uremia (15 minutes). Edward F. Wells, Chicago.

Report of Committee on Revision of the Pharmacopeia (20 minutes). Thomas McCrae, Baltimore.

Rocky-Mountain Spotted Fever, with Lantern Slide Demonstration (20 minutes). H. T. Ricketts, Chicago.

The Talma-Morison Operation in the Treatment of Cirrhosis of the Liver (15 minutes). George Dock, New Orleans.

Algid Forms of Malaria, with Report of Cases (15 minutes). Thomas D. Coleman, Augusta, Ga.

A Study of the Anatomy and Clinical Importance of the Sacroiliac Joint. Fred H. Albee, New York City.

The Endometrium and Some of Its Variations. William S. Gardner and Emil Novak, Baltimore.

The Treatment of Certain Vesical Affections by Means of Hydraulic Distension. Edgar Garceau, Boston.

Chronic Appendicitis with Chronic Perienteritis and Intestinal Obstruction Due to Infolding of Mucosa. Report of a Case. Presentation of Specimens. Francis D. Donoghue, Boston.

The Pathology of Eclampsia and Toxemia of Pregnancy. J. E. Welch, New York City.

Study of Eclampsia, With Results in Two Hundred and Fifty Cases, From the Wards of the Lying-In Hospital of New York City. Ross McPherson, New York City.

The Present Status of Irrigation and Drainage in Obstetric and Gynecologic Operations. Horace G. Wetherill, Denver.

Some Factors Which Contribute to Low Mortality in Abdominal Surgery. F. F. Simpson, Pittsburg.

Remote Results of Conservative Surgery of the Ovaries. John Osborn Polak, Brooklyn.

The Etiology and Prophylaxis of Postoperative Thrombo-Phlebitis. Daniel H. Craig, Boston.

Curettage for Uterine Hemorrhage. Howard A. Kelly, Baltimore.

Fig. 7.—A view of the beach in summer, thousands enjoying themselves playing in the water on the strand.

The Value of Alimentary Levulosuria in the Diagnosis of Hepatic Cirrhosis (10 minutes). John H. Musser and Edward H. Goodman, Philadelphia.

The Nature and Treatment of Anemia (15 minutes). S. P. Beebe and W. Gilman Thompson, New York.

The Value of Baths and Exercises in the Treatment of Heart Disease (15 minutes). Robert H. Babcock, Chicago.

Value of Physical Training (15 minutes). H. B. Favill, Chicago.

The Value of Bier's Hyperemia in the Treatment of Joint Affections (15 minutes). Willy Meyer, New York.

Massage in General Medicine (15 minutes). John K. Mitchell, Philadelphia.

The Work of a Cooperative Hydrotherapeutic Establishment (15 minutes). Joseph H. Pratt, Boston.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN

CHAIRMAN, WALTER P. MANTON, DETROIT; SECRETARY, C. JEFF MILLER, NEW ORLEANS.

Chairman's Address: Mental Alienation in Women and Abdomino-Pelvic Disease. Walter P. Manton, Detroit.

The Operation of Choice for Retrodisplacements of the Uterus. A. E. Benjamin, Minneapolis.

Some Minor Gynecologic Matters Which Are Often Overlooked. I. S. Stone, Washington, D. C.

A Method of Complete Nephroureterectomy in Women. J. Wesley Bovée, Washington, D. C.

Perineorrhaphy by the Flap-Splitting Method. Charles P. Noble, Philadelphia.

Fibromyoma of the Uterus. Ellice McDonald, New York.

Enucleation of Uterine Myomata, Why and When Performed. E. E. Montgomery, Philadelphia.

Ovariotomy and Myomectomy Early in Pregnancy with Full-Term Delivery. H. Grad, New York City.

Cancer of the Uterus Too Far Advanced for Radical Operation. H. J. Boldt, New York City.

Palliative Treatment of Cancer of the Uterus. Walter B. Chase, Brooklyn.

An Ovarian Abscess Containing a Lumbricoid Worm Within the Cavity. Henry D. Fry, Washington, D. C.

Tetanus Developing Twelve Days After Shortening of the Round Ligaments. Recovery. Reuben Peterson, Ann Arbor.

Pelvic Inflammation Apparently Due to Infection from the Rectum. Paul Michinard, New Orleans.

Final Word on the Stem Pessary for Dysmenorrhea, Amenorrhea, Sterility, Etc. J. H. Carstens, Detroit.
Cesarean Section. Wm. H. Wathen, Louisville.
Conditions Simulating Tubal Pregnancy. H. S. Crossen, St. Louis.
Extrauterine Pregnancy with Especial Reference to the Proper Operative Period After Tubal Rupture, with Report of Cases. L. G. Bowers, Dayton.
Abdominal Surgery in America. A Historical Review, Largely Personal. H. O. Marcy, Boston.
Cystocele. George R. White, Savannah.
An Imbricating and Coaptation Suture as a Safeguard Against Hernia. D. Tod Gilliam, Columbus, Ohio.

SECTION ON SURGERY AND ANATOMY

CHAIRMAN, JOHN C. MUNRO, BOSTON; SECRETARY, JOHN F. BINNIE, KANSAS CITY, MO.

Chairman's Address: John C. Munro, Boston.
Localized Subphrenic Tuberculosis. C. A. Powers, Denver, Colo.
Treatment of Tuberculous Pleuritis and Empyema. Emil G. Beck, Chicago.
Report of Twenty Cases of Perforated Gastric and Duodenal Ulcer. J. H. Gibbon and F. T. Stewart, Philadelphia.
Intussusception. W. J. Frick, Kansas City, Mo.
Infections of the Joints. Experimental and Clinical Study. J. B. Murphy, Chicago.
Arthritis Deformans. E. H. Nichols, Boston.
Conservative Treatment of Sarcoma of the Long Bones. W. B. Coley, New York.
The Transperitoneal Operation for the Removal of Bladder Neoplasms. E. S. Judd, Rochester, Minn.
A Radical Operation for Certain Forms of Hydrocele. Willard Bartlett, St. Louis, Mo.
Dilatation Treatment of Urethral Stricture. V. C. Pederson, New York.
Some Therapeutic Possibilities of Cholecystostomy. L. L. McArthur, Chicago.
Surgery of the Large Intestine. W. J. Mayo, Rochester, Minn.
The Treatment of the Appendix Stump. Van Buren Knott, Sioux City, Iowa.
Consideration of the Mortality of Appendicitis. LeGrand Guerry, Columbia, S. C.
Causes of Death in Acute Intestinal Obstruction and Kindred Conditions (10 minutes). J. W. D. Maury, New York.

Fig. 8.—Another view of the beach, this one taken in August.

Address on Thoracic Surgery. Prof. P. L. Friedrich, Marburg, Germany.
Pneumectomy with the Aid of Differential Pressure; An Experimental Study. The New Type of Apparatus Used. Willy Meyer, New York.
Anastomotic Button in Intrathoracic Surgery (10 minutes). J. W. D. Maury, New York.
Electrical Anesthesia. Raymond Russ, San Francisco.
Report of Anesthesia Committee (10 minutes).
The Operative Treatment of Fractures. W. Arbuthnot Lane, Esq., London, Eng.
Operative Treatment of Fractures. William Darrach, New York.
A Plea for the More Careful Diagnosis of Fractures and Their Treatment. E. D. Martin, New Orleans.
Metallic Clips for the Closure of Wounds of the Skin and Hollow Viscera. E. Wyllys Andrews, Chicago.
The Pseudoperitoneum. A. E. Hertzler, Kansas City, Mo.
The Early Symptoms of Upper Abdominal Disease. J. B. Deaver, Philadelphia.
Pancreatitis. A. J. Ochsner, Chicago.
Hypertrophic Stenosis of the Pylorus in Infants. Report of Cases Occurring on the Pacific Coast. Stanley Stillman, San Francisco.
Neurectomy for the Relief of Pain in Intra-abdominal Adhesions and in Certain Forms of Dysmenorrhea. M. L. Harris, Chicago.
The Radical Treatment of Epithelioma of the Lip. J. C. Stewart, Minneapolis.
Report of a Case of Sarcoma of the Tonsil. John E. Summers, Jr., Omaha, Neb.
Method of Procedure in Mammary Neoplasms of Doubtful Nature. Wm. L. Rodman, Philadelphia.
Radical Operation in Mammary Cancer. J. N. Jackson, Kansas City, Mo.
Primary Sarcoma of the Spleen. Camillus Bush, San Francisco.

SECTION ON OPHTHALMOLOGY

CHAIRMAN, ALVIN A. HUBBELL, BUFFALO; SECRETARY, ALBERT E. BULSON, JR, FT. WAYNE, IND.

Chairman's Address: Alvin A. Hubbell, Buffalo, N. Y.
The Visual Fields in Hysteria—A Clinical Study of Fifty Cases. Walter R. Parker, Detroit, Mich.
Regeneration of the Cornea. M. Wiener, St. Louis, Mo.

Scissors-Magnet Extraction of Iron from Eyeball. Edward Jackson, Denver, Colo.

Prophylaxis of Interstitial Keratitis. H. Gifford, Omaha, Neb.

The Accommodation and Donder's Curve, and the Need of Revising Our Ideas Regarding Them—An Experimental Study. Alexander Duane, New York, N. Y.

Exhibition of New Instruments and Appliances.

Isolated and Complete Paralysis of the Third Nerve of Traumatic Origin. Lee M. Francis, Buffalo, N. Y.

Unreliability of Astigmatic Fan or Clock Dial Test. David W. Stevenson, Richmond, Ind.

Simple Fibroma of the Orbit. William E. Gamble, Chicago, Ill.

Dropsy of the Optic Nerve Sheath. J. A. Tenney, Boston.

Reflex Aural Neuroses Caused by Eye-Strain—with Report of Cases. Samuel Theobald, Baltimore, Md.

Amethyst Tinted Lenses—A Preliminary Communication. L. Webster Fox, Philadelphia, Pa.

Some Minor Points in the Surgery of Cataract. H. F. Hansell, Philadelphia, Pa.

The Expression of Cataract in Its Capsule—with Report of Forty Operations. H. V. Würdemann, Seattle, Wash.

Expression of Cataracts in the Capsule by the Smith Method. D. W. Greene, Dayton, Ohio.

Galvano-Cautery Puncture in Ectropion and Entropion. S. Lewis Ziegler, Philadelphia.

Rodent Ulcer of the Cornea. R. L. Randolph, Baltimore, Md.

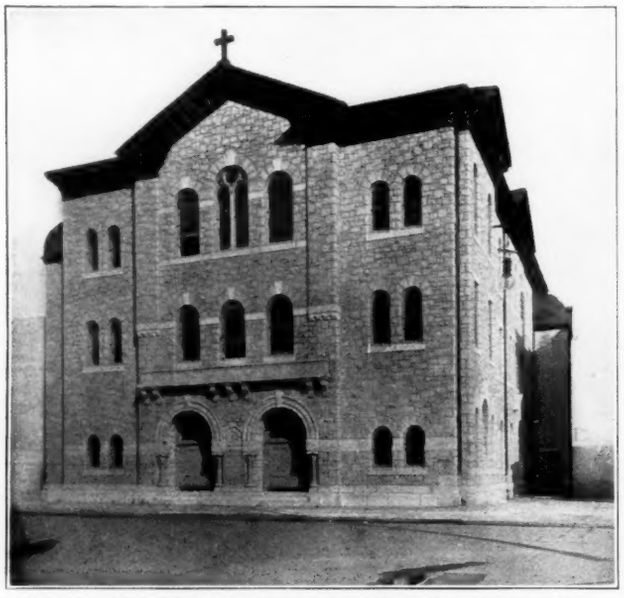


Fig. 9.—Parochial School, meeting place for the Sections on Ophthalmology and on Laryngology and Otology.

Epibulbar Leucosarcoma. Exenteration of the Orbit. No Recurrence at the Original Site. Death in Three Months from Metastases. Casey A. Wood, Chicago, Ill.

Operative Treatment of Glaucoma by Cyclodialysis. Arnold Knapp, New York, N. Y.

The Management of Acute Hemorrhagic Glaucoma in the Presence of Advanced Arteriosclerosis. Charles S. Bull, New York, N. Y.

Primary Hemorrhagic Glaucoma with Probable Sympathetic Inflammation. Mortimer Frank, Chicago, Ill.

Nodular Opacity of Cornea—Etiology. John Green, Jr., St. Louis, Mo.

Practical Importance of Hyperphoria in Prescribing Lenses for Use at Particular Distances and in Different Directions. Mark D. Stevenson, Akron, Ohio.

Tenotomy or Advancement? Lucien Howe, Buffalo, N. Y.

Report of Committee on Collective Investigation Concerning the Ocular Muscles. Lucien Howe, Buffalo, N. Y.

Preliminary Report of Committee on Collective Investigation Concerning Tuberculosis of the Eye. William H. Wilder, Chicago.

Operative Treatment of Papillo-Edema Dependent on Increased Intracranial Tension. G. E. de Schweinitz, Philadelphia.

Surgical Aspects of Cerebral Decompression. Charles H. Frazier, Philadelphia.

A Clinical Investigation on the Relationship of Tuberculosis to Certain Diseases of the Eye. G. S. Derby and T. H. Ayer, Boston.

Neuropathic Keratitis and Some Allied Conditions, with Special Reference to Treatment. F. H. Verhoeff, Boston.

Lachrymal Gland Tumors. L. D. Brose, Evansville, Ind.

SECTION ON LARYNGOLOGY AND OTOLOGY

CHAIRMAN, W. SOHIER BRYANT, NEW YORK; SECRETARY, GEORGE E. SHAMBAUGH, CHICAGO.

President's Address. W. Sohier Bryant, New York.

Treatment of Palatopharyngeal Adhesions, New Operation for Their Successful Relief. J. C. Roe, Rochester, N. Y.

A New and Satisfactory Apparatus for Etherization in Operations About the Face and Upper Air Passages. A. H. Miller, Providence.

Benign Tumors of the Turbinated Bodies Clinically and Pathologically Considered. Richard H. Johnston, Baltimore.

Anatomic and Physiologic Considerations Relating to the Faucial Tonsils. C. M. Robertson, Chicago.

Conditions in the Faucial Tonsils Which Call for Operative Interference. Emil Mayer, New York.

A Discussion of the Methods of Operating on the Faucial Tonsils. Norval H. Pierce, Chicago.

General Anesthesia for Tonsil and Adenoid Operations. Francis R. Packard, Philadelphia.

Postoperative Tonsillar Bleeding. Its Surgical Control, with Mention of Cases. Lee Cohen, Baltimore.

Fracture of the Base of the Skull. Charles R. C. Borden, Boston.

Presence of Vincent's Spirilla and Bacilli Fusiformis in Pseudomembranous Anginas. Wm. R. Murray, Minneapolis.

Occurrence of Acute Inflammation of the Nasal Accessory Sinuses, Symptoms and Treatment. David B. Kyle, Philadelphia.

Suppurative Accessory Sinus Diseases in Which an Intranasal Operation Is Indicated. H. W. Loeb, St. Louis.

Diseased Conditions Involving the Nasal Accessory Sinuses in Which an External Operation Is Indicated. C. G. Coakley, New York.

Two Cases of Infectious Labyrinthitis. George F. Cott, Buffalo.

Symptoms of the Intracranial Complications Occurring in Chronic Suppurative Otitis Media. A. B. Duel, New York.

Indications for Tympanomastoid Exenteration in Cases of Chronic Suppurative Otitis Media Where There Is An Absence of Evidence of an Intracranial Complication. B. A. Randall, Philadelphia.

Conditions Which Constitute Contraindications to the Typanomastoid Exenteration in Cases of Chronic Suppurative Otitis Media. Eugene A. Crockett, Boston.

Exhibition of Preparations, Instruments, etc.

X-Ray Examination of the Mastoid. Samuel Iglauer, Cincinnati.

The Physiology of the Eustachian Tube. E. P. Fowler, New York.

The Deaf Child and the Physician. John D. Wright, New York.

Correction of Nasal Deformities. Wm. W. Carter, New York.

SECTION ON NERVOUS AND MENTAL DISEASES

CHAIRMAN, M. ALLEN STARR, NEW YORK; SECRETARY, WM. ALEXANDER JONES, MINNEAPOLIS.

President's Address. M. Allen Starr, New York.

Tumors of the Hypophysis. D'Orsay Hecht, Chicago.

Successful Removal of a Cerebellar Tumor. T. Diller and O. C. Gaub, Pittsburg.

Observations on Brain Tumors. Wm. G. Spiller, Philadelphia.

Tumors of the Pons: Four Cases with Necropsy. T. H. Weisenburg, Philadelphia.

Diagnosis of Spinal Cord Tumors, with Report of a Case Operated. J. Grinker, Chicago.

Symposium: The Serum Diagnosis of Syphilis and Its Relation to Diseases of the Nervous System.

(a) On the Value of Serodiagnostic Methods in the Diagnosis of Diseases of the Central Nervous System. B. Sachs, New York.

(b) On the Practical Value of Lymphocytosis and the Globulin Reaction and the Complement-Binding Reaction for Neurology. Max Nonne, Hamburg, Germany.

(c) Serodiagnosis of Syphilis. Hideyo Noguchi, New York.
(d) The Wassermann Reaction. E. Castelli, New York.
(e) A Side Light on the Syphilitic Etiology of Tabes. James J. Putnam, Boston.

Report of Two Cases of Probable Spinal Cord Lesion Following Pasteur Treatment. Wm. A. Jones, Minneapolis.

Facial Neuralgia Treated by Deep Injections of Alcohol; 75 Cases Reported. Hugh T. Patrick, Chicago.

Visual Disturbances in Multiple Sclerosis. Theo. Klingman, Ann Arbor, Mich.

Optic Atrophy in Tabes. A Diagnostic Symptom in the Differential Diagnosis from General Paresis. E. D. Fisher, New York.

Muscular Effort in the Non-paralyzed Extremity on Attempting to Move the Paralyzed Extremity in Hemiplegia. Charles W. Burr, Philadelphia.

The Paralytic Complications of Herpes Zoster. J. Ramsay Hunt, New York.

Treatment of Occupation Neurosis and Neuritis in the Arms. J. Madison Taylor, Philadelphia.

The Effect of Intercurrent Disorders on Pre-existing Epilepsy. A. S. Hamilton, Minneapolis.

Hydrotherapy in the Treatment of Nervous and Mental Diseases. W. B. Spratling, Baltimore.

The Simulation of Insanity. Charles K. Mills, Philadelphia.

The Practical Value of the Association Experiment. Pearce Bailey, New York.

Some Modern Problems in the Care and Treatment of Mental Defectives. L. Pierce Clark, New York.

A Clinical Study of a Series of Cases of Insanity. H. A. Tomlinson, St. Peter.

A Study of the Traumatic Insanities. A. C. Brush, Brooklyn.

Traumatic Neuroses, with a Report of Cases. E. E. Gaver, Columbus.

Medical vs. Legal Responsibility. Alfred Gordon, Philadelphia.

The Responsibility of Physicians in Cases which Menace Public Safety. W. R. Dunton, Towson.

Some Points of Contact Between Neurology and Orthopedic Surgery. J. E. Goldthwaite, Boston.

Meningitis and Lesions of the Radicular Nerves in Tabes Dorsalis. John H. W. Rhein, Philadelphia.

Nervous Symptoms of Pellagra. E. D. Bondurant, Mobile.

Allochiria. Carl D. Camp, Ann Arbor.

The Syndrome of Thalamus Hemorrhage. Charles L. Dana, New York.

SECTION ON HYGIENE AND SANITARY SCIENCE

CHAIRMAN, J. H. WHITE, NEW ORLEANS, LA.; SECRETARY, S. T. ARMSTRONG, NEW YORK.

Chairman's Address: J. H. White, New Orleans.

The Importance of Consolidation of All the National Health Associations into the Section on Hygiene and Sanitary Science with the Purpose of Making It What It Should Be. J. N. McCormack, Bowling Green, Ky.

The Relation of the Medical Profession to Preventive Medicine. H. M. Bracken, St. Paul, Minn.

Popular Education as a Stimulus in Public Health Work. W. M. Brumby, Austin, Texas.

Preservatives in Food Materials: Their Detection and Effects. D. H. Bergey, Philadelphia.

The Limitations in Public Health Administration. Henry B. Hemenway, Evanston.

Vasectomy as the Means of Preventive Procreation in the Defectives. Harry C. Sharp, Indianapolis.

Public Health Problems. George A. Soper, New York.

Lake Michigan Water for Drinking Purposes. W. A. Evans, Chicago.

The French Tobacco Factory at Issy, near Paris: Hygienic Notes. Oscar Dowling, Cincinnati.

The Sanitary Regeneration of San Francisco. N. K. Foster, Sacramento, Cal.

Insect Carriers of Typhoid Fever. W. Forrest Dutton, Walker's Mills, Pa.

Typhoid Immunity and Antityphoid Inoculations. Willard J. Stone, Toledo, Ohio.

The Prevention of Malaria. Seale Harris, Mobile, Ala.

The Notification to the Local Health Authorities of Cases of Abortion and Miscarriage. Myer Solis Cohen, Philadelphia.

Necessity of More Extended Cooperation at Ports of Departure in Preventing or Diminishing the Transmission of Infectious Diseases from One Country to Another. A. H. Doty, Quarantine, L. I.

Reduction of Quarantine Restrictions to a Safe Minimum. J. Y. Porter, Key West, Fla.

SECTION ON STOMATOLOGY

CHAIRMAN, EDWARD C. BRIGGS, BOSTON; SECRETARY, EUGENE S. TALBOT, CHICAGO.

Chairman's Address. Edward C. Briggs, Boston.

Enamel and Its Vitality. R. R. Andrews, Cambridge, Mass.

A Study of Malnutrition in the School Child. E. Mather Sill, New York City.

Suppression of the People's Disease. S. B. Luckie, Chester, Pa.

The Rôle of the Teeth in Respiration. F. L. Stanton, New York City.

Oral Prophylaxis. Alphonse Irwin, Camden, N. J.

The Tonsils and the Teeth. G. Hudson-Makuen, Philadelphia.

Mouth Conditions in Their Relation to Systemic Infection. Frederick B. Moorehead, Chicago.

The Surgery of Cleft Palate. George V. I. Brown, Milwaukee, Wis.

General Therapeutics and Surgery in Dentistry. Arthur R. Dray, Philadelphia.

Conservative Surgery for Treatment of Tumors of the Mandible. Thomas L. Gilmer, Chicago.

A Method of Treating Mandibular Fractures. Robert T. Oliver, West Point, N. Y.

The Treatment of Extreme Degrees of Malocclusion of the Teeth by Operations on the Ramus of the Inferior Maxillary Bone. W. Wayne Babcock, Philadelphia.

Osteomyelitis of the Jaw. H. H. Germain, Boston.

Report of Two Record Tertiary Cases. G. Lennox Curtis, New York City.

Trifacial Neuralgia. Fred Hussey, Providence, R. I.

Anesthesia. L. G. Noel, Nashville, Tenn.

A Summary of Thirteen Thousand Nitrous Oxid and Oxygen Anesthesias. Charles K. Teter, Cleveland, Ohio.

Pseudopulpitis and Periostitis Due to Rheumatoid Arthritis. William Mills, Baltimore.

Dental Roentgenology. G. E. Pfahler, Philadelphia.

A Number of Cases in which the Nasal Sinuses Have Been Enlarged by Orthodontia. E. A. Bogue, New York.

Report of the Committee on Revision of Pharmacopeia. Hermann Prinz, Chairman, St. Louis; G. B. Squires, Somerville, Mass.

Report of the Committee on Vital Statistics. George V. I. Brown, Chairman, Milwaukee; Vida A. Latham, Chicago; Frederick B. Moorehead, Chicago.

SECTION ON DISEASES OF CHILDREN

CHAIRMAN, THOMAS S. SOUTHWORTH, NEW YORK; SECRETARY, W. W. BUTTERWORTH, NEW ORLEANS.

Chairman's Address: The Field for Prophylaxis Among Children. Thomas S. Southworth, New York.

Transitory Urinary Findings, Associated with Some Diseases of Childhood. Walter Lester Carr, New York.

Food Intoxications in Childhood. John Ruhräh, Baltimore.

Infantile Eczema; Some Recent Views Concerning Its Pathology and Etiology. Isaac A. Abt, Chicago.

Cardiovascular Disease in Children with Presentation of a Sphygmoscope, Designed for Children. R. G. Freeman, New York.

Hair Ball or Hair Cast of the Stomach, and Its Occurrence in Children. W. W. Butterworth, New Orleans.

The Treatment of Summer Diarrhea, Due to Intestinal Fermentation, with Living Lactic Acid Bacilli. Charles Hunter Dunn, Boston.

Vaccine and Serum Therapy in Diseases of Children. Charles Gilmore Kerley, New York.

The Treatment of Epidemic Meningitis with the Flexner Serum. Frank Spooner Churchill, Chicago.

The Treatment of Anemia in Infancy with Citrate of Iron Subcutaneously. John Lovett Morse, Boston.

Sea-Water Treatment; Given by Subcutaneous Injection, with the Results Obtained in Children. Theodore Le Boutillier, Philadelphia.

Middle-Milk Mixtures. Alfred F. Hess, New York.

The Relation Between the Science and Art of Infant Feeding. Henry Dwight Chapin, New York.

Infant Mortality: The Factors which Compose It, and How These May Be Influenced. L. Emmett Holt, New York.

Heubner's System of Infant Feeding, Based on Calories and Low Fat. E. Lackner, Chicago.

A Convenient Method for Determining Caloric Values of Formulas Based on Percentage Feeding of Infants. Henry I. Bowditch, Boston.

The Transmission of Bovine Tuberculosis to Children. Henry L. K. Shaw, Albany.

The Antibodies in Tuberculosis. Their Relation to Tuberculin Inoculation and Vaccination. William J. Butler, Chicago.

The Child's Breakfast. W. C. Hollopeter, Philadelphia.

Conditions of the Public School Child. J. W. Van Derslice, Chicago.

The Hygiene of Lactation. J. Ross Snyder, Birmingham.

Help the Mother Nurse Her Child. Maurice Ostheimer, Philadelphia.

Opacities of the Cornea: Their Frequency in Children from Preventable Causes, and Their Effect on Vision. Colman W. Cutler, New York.

Exhibition of a Patient with Achondroplasia, with Notes on the Disease. M. H. Fussell, R. S. McCombs, G. L. de Schweinitz, Philadelphia.

Suppurative Conditions in Joint Regions in Infants. Linnaeus E. La Fétra, New York.

"*Post Hoc Ergo Propter Hoc*," Cases in Children Illustrating Conditions Mistakenly Attributed to Injuries. J. P. Crozer Griffith, Philadelphia.

Persistent Thoracic Sinus Following Empyema. Charles N. Dowd, New York.

History of Two Cases of Congenital Pyloric Spasm, with Remarks on the Treatment and Etiology of the Condition. D. J. M. Miller, Atlantic City.

Syphilitic Pseudoparalysis. L. T. Royster, Norfolk, Va.

SECTION ON PHARMACOLOGY AND THERAPEUTICS

CHAIRMAN, REID HUNT, WASHINGTON, D. C.; SECRETARY, C. S. N. HALLBERG, CHICAGO.

Chairman's Address: The Advancement of Pharmacology and Therapeutics by Experiments on Animals. Reid Hunt, Washington, D. C.

Addresses of Delegates of the American Pharmaceutical Association. Geo. M. Beringer, Ph.M., Camden, N. J.

The Mercurial Salts in the Treatment of Syphilis. Lewis W. Bremerman, Chicago.

The Therapeutic Management of Arteriosclerosis Based on the Present View of its Pathology. Alexander G. Brown, Jr., Richmond, Va.

The Analgesic Effect of Local Applications of Solutions of Magnesium Sulphate and of Other Salts. Solomon Solis-Cohen, Philadelphia.

The Determination of the Quality of Ergot. Horatio C. Wood, Jr., Philadelphia.

Some Observations on the Pharmacologic Action of Ergot. E. M. Houghton and H. S. Yntema, Detroit.

Clinical Results with *Crataegus oxycanthus*, T. F. Reilly, New York City.

The Use of Ferments in Medicine. Charles G. Stockton, Buffalo.

General Principles of Dietetics with Special Reference to the Use of Proprietary Foods. David Edsall, Philadelphia.

Proprietary and Predigested Foods from the Standpoint of the Pediatrist. John Howland, New York City.

The Advantages of Adhering to the Use of Potassium Iodid. George Dock, New Orleans.

Clinical Use of Phenolphthalein. John J. Gilbride, Philadelphia.

Pharmacologic and Clinical Study of Some Phthaleins. L. G. Rowntree, Baltimore.

The Lowering of Blood Pressure by Nitrites. George B. Wallace and A. I. Ringer, New York City.

SYMPOSIUM ON THE PRESENT STATUS OF SERUM AND VACCINE THERAPY WITH SPECIAL REFERENCE TO THE PRODUCTS ON THE AMERICAN MARKET.

(a) The Federal Control of Sera, Vaccines, etc. (b) Vaccine Virus. M. J. Rosenau, Washington, D. C.

Diphtheria Antitoxin. W. H. Park, New York City.

Tetanus Antitoxin. J. F. Anderson, Washington, D. C.

(a) General Principles of Bacterial Vaccine Therapy. (b) Specific Therapy with Infections with the Colon Bacillus —Vaccines and Sera. (c) Vaccine Therapy of Neoformans Infections. (d) Principles of Specific Therapy in Typhoid Fever. Mark W. Richardson, Boston.

Investigations of Sera and Vaccines for Streptococcus, Straphylococcus, and Pneumococcus Infections. L. Hektoen, G. H. Weaver and R. Tunnicliff, Chicago.

(a) Antigonococcus Serum and Gonococcus Vaccine (Bacterin). (b) Uselessness of Therapy by Pyocyaneus Vaccine. B. A. Thomas, Philadelphia.

General Principles of Tuberculin Diagnosis and Treatment. E. R. Baldwin, Saranac Lake, N. Y.

The Treatment of Inoperable Sarcoma by Erysipelas and Prodigiosus Toxins. Leo Loeb, Philadelphia.

(a) Antidysenteric Serum. (b) Antimeningococcus Serum. Simon Flexner, New York City.

Results of Three Years' Experience in Bacterial Immunization. B. A. Thomas, Philadelphia.

On Antivenins. H. Noguchi, New York City.

Report of Committee on the United States Pharmacopeia.

Additions and Eliminations from the United States Pharmacopeia from the Viewpoint of Statistics. C. S. N. Hallberg, Chicago.

Do We Possess in the Drugs and Preparations that are Recognized by the United States Pharmacopeia and the National Formulary a Sufficient Armamentarium for the Medicinal Treatment of Disease? M. Clayton Thrush, Philadelphia.

A Classification of Proprietary Medicines. A. T. McCormack, Bowling Green, Ky.

Nature of Preparations Used in the Treatment of Drug Addictions. L. F. Kebler, Washington, D. C.

What Can Physicians Do to Improve the Pharmacopeia? Henry Leffmann, Philadelphia.

Nomenclature of the United States Pharmacopeia and National Formulary Mixtures. L. F. Kebler, Washington, D. C.

Some of the Preparations of the United States Pharmacopeia from the Practitioner's Standpoint. M. H. Fussell, Philadelphia.

The National Formulary: Its Genesis, Character and Exigent Utility. H. P. Hynson, Baltimore.

SECTION ON PATHOLOGY AND PHYSIOLOGY

CHAIRMAN, M. J. ROSENAU, WASHINGTON; SECRETARY, H. GIDEON WELLS, CHICAGO.

Chairman's Address: The Rôle of Animal Experimentation in the Diagnosis of Contagious Diseases. M. J. Rosenau, Washington, D. C.

Further Evidence on the Endemic Occurrence of Cancer in Animals. Harvey R. Gaylord, Buffalo, N. Y.

The Relation Between Anaphylaxis and Immunity. Paul A. Lewis, New York.

The Hemolytic Action of Crotalus Venom on Human Erythrocytes. Joseph McFarland and Paul G. Weston, Philadelphia.

The Relation of Ether to Immunity. Evarts A. Graham, Chicago.

Notes on the Histogenesis of the Thymus Cells, and on the Normal and Pathological Histology of the Thymus. Alwin M. Pappenheimer, New York.

Cardiac Thrombosis: The Clinical and Pathological Findings in Four Cases. Frank Smithies, Ann Arbor, Mich.

Clinical and Experimental Studies in Surgical Anemia and Shock. G. W. Crile, D. H. Dolley and D. A. Prendergast, Cleveland.

The Relation of Venous Pressure to the Efficiency of the Heart. Yandell Henderson, New Haven, Conn.

The Measurement of Human Blood Pressure. Louis Faugeres Bishop, New York.

The Rate of Blood Flow in the Arm. A. W. Hewlett and J. G. van Zwaluwenburg, Ann Arbor, Mich.

Some Relations of Iodin in the Thyroid. S. P. Beebe, New York.

The Metabolic Influence of Copious Water Drinking with Meals. C. C. Fowler and P. B. Hawk, Urbana.

Experimental Analysis of the Altered Function of the Kidney in Diabetes Mellitus. Harlan Shoemaker, Philadelphia.

THE SECTION WILL ATTEND THE SYMPOSIUM OF THE SECTION ON PHARMACOLOGY AND THERAPEUTICS, ON THE PRESENT STATUS OF SERUM AND VACCINE THERAPY WITH SPECIAL REFERENCE TO THE PRODUCTS ON THE AMERICAN MARKET.

The Physiological Utilization of Some Complex Carbohydrates. Lafayette B. Mendel and Mary D. Swartz, New Haven, Conn.

The Experimental Production of Maternal Placenta. Leo Loeb, Philadelphia.

The Relation of Tonus to Peristalsis. W. B. Cannon, Boston, Mass.

Acquired Intestinal Diverticula. Guthrie McConnell, St. Louis.

The Transformation from Tumor into Cystic Tissue in the Central Nervous System. D. J. McCarthy, Philadelphia.

Cysts of the Female Breast, and their Relation to Carcinoma. Joseph C. Bloodgood, Baltimore.

Pathology of Gastric Ulcer. Wm. Carpenter MacCarty, Rochester, Minn.

What a Pathologist Should Know About Obstetrics and Gynecology. Ellice McDonald, New York.

The Inadequacy of the Present Methods Employed in the Bacteriological Study of the Intestinal Tract. Katharine R. Collins, Atlanta, Ga.

The Significance of Ehrlich's Aldehyde Reaction in the Urine. Oscar Berghausen, Cincinnati.

The Diagnostic Value of Hemolysis in Cancer and Tuberculosis. George W. Crile, Cleveland.

Hemolysis in the Diagnosis of Malignant Neoplasms. O. P. Johnstone and C. H. Canning, Pittsburg.

A Rational and Practical Complement Fixation Test and the Butyric Acid Test for Syphilis Diagnosis. Hideyo Noguchi, New York.

Some Studies of the Precipitin Tests for Syphilis. Henry S. Wieder and Edward M. l'Engle, Philadelphia.

Serum Diagnosis of Syphilis. Wm. Litterer, Nashville, Tenn.

SECTION ON CUTANEOUS MEDICINE AND SURGERY

No program for this Section had been received at the time of going to press.

THE COMMERCIAL EXHIBIT

The Exposition of Instruments, Apparatus, Remedial Agents, Literature and Physicians' Supplies at Atlantic City

The Commercial Exhibit will, as usual, be supervised directly by the officers of the American Medical Association, whose aim and desire has been to sacrifice mere size to excellence. The exposition will be held on Young's Pier, in what is known as the Music Hall and Skating Rink. The entrance to the exhibit hall is directly adjacent to the famous Boardwalk. The scientific exhibit, the registration department, the postoffice and the information bureau, will all be under the same roof as the commercial exhibit. There is every reason to believe that the display this year will excel in quality and interest that of any previous exposition.

The number of physicians who fail to derive any satisfaction from visiting the commercial exhibits at the meeting of the American Medical Association, is, we venture to say, very small. To the average man there is a great deal of pleasure to be had from looking over the choicest and latest products of the publishers' art; from handling and seeing finely finished surgical instruments; from examining high grade and elegant pharmaceuticals; and from testing the latest thing in automobiles. Such exhibits have a distinct educational value.

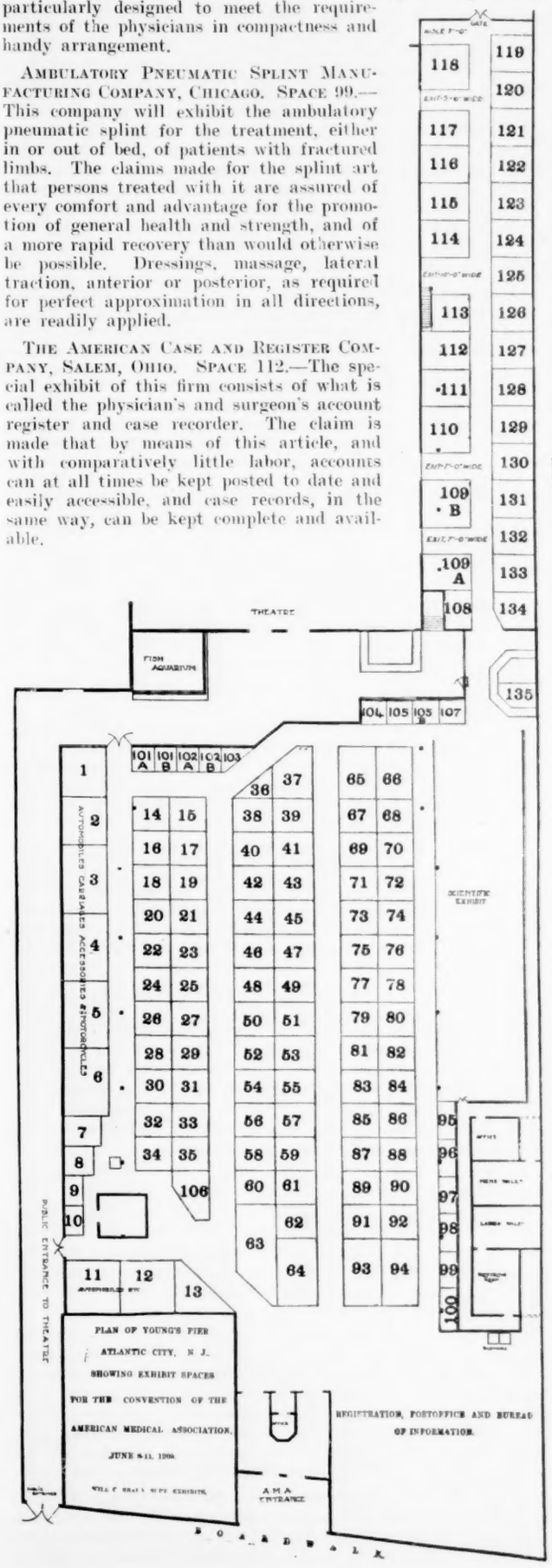
All correspondence with reference to reservations should be sent to Mr. Will C. Braun, superintendent of exhibits, 103 Dearborn Avenue, Chicago. Dr. Edward Guion, 1408 Atlantic Avenue, Atlantic City, N. J., will act as local chairman. Most of the firms that will be represented at this exposition are mentioned below.

DR. H. M. ALEXANDER & COMPANY, MARIETTA, PA. SPACE 105.—Four of the products prepared at its laboratories will be exhibited by this company. The Pasteur anti-rabic vaccine will be shown in an emulsion preserved in glycerin and in a special container enclosed in a vacuum bottle rendering it possible to transport it through the mails. All of the various forms of tuberculin made from tubercle bacilli of both the bovine and the human types will be shown, as well as smallpox vaccine virus and concentrated and refined diphtheria antitoxin.

W. D. ALLISON COMPANY, INDIANAPOLIS. SPACES 22 AND 23.—Some new features will be displayed by this firm in addition to its well-known practical equipment. These will include a new line of reception room furniture, a chair which is said to combine all the features required by specialists, and can be converted instantly into an operating table and used as well in general practice, and also a line of sanitary roll-top desks, particularly designed to meet the requirements of the physicians in compactness and handy arrangement.

AMBULATORY PNEUMATIC SPLINT MANUFACTURING COMPANY, CHICAGO. SPACE 99.—This company will exhibit the ambulatory pneumatic splint for the treatment, either in or out of bed, of patients with fractured limbs. The claims made for the splint art that persons treated with it are assured of every comfort and advantage for the promotion of general health and strength, and of a more rapid recovery than would otherwise be possible. Dressings, massage, lateral traction, anterior or posterior, as required for perfect approximation in all directions, are readily applied.

THE AMERICAN CASE AND REGISTER COMPANY, SALEM, OHIO. SPACE 112.—The special exhibit of this firm consists of what is called the physician's and surgeon's account register and case recorder. The claim is made that by means of this article, and with comparatively little labor, accounts can at all times be kept posted to date and easily accessible, and case records, in the same way, can be kept complete and available.



D. APPLETON & COMPANY, NEW YORK CITY. SPACE 33.—This long-established house will exhibit many new works, among which will be Dr. Henry Ling Taylor's "Orthopedic Surgery" (preventative orthopedics), Dr. George W. Crile's original work on "Hemorrhage and Transfusion," Dr. Alexander Bryan Johnson's "Surgical Diagnosis," "The American Treatise on Tuberculosis," edited by Dr. Arnold C. Klebs, and many others. The firm will also have a full line of its standard and forthcoming works on exhibit.

ARLINGTON CHEMICAL COMPANY, YONKERS, N. Y. SPACES 30 AND 32.—This firm will exhibit the preparations, liquid peptonoids and dry peptonoids soluble and hemaboloids, together with some interesting scientific data regarding food values and the methods of preparation of these goods. An attractive and artistic souvenir will be presented to all physicians who visit the exhibit.

ARMOUR & COMPANY, CHICAGO. SPACES 67 AND 68.—The work now being carried on by physiologists, biochemists and pharmacologists shows the importance of the hormones in the animal organism, their relations and their functions. Recent discoveries indicate that probably the many lecithins and organ lipoids play some rôle in the immunizing processes, that the thyroid, suprarenal and pancreas hormones are interdependent and possibly control the fat, sugar and protein metabolism. Physicians doubtless will find the exhibit of this firm's organotherapeutic agents particularly interesting.

ATLAS MOTOR CAR COMPANY, SPRINGFIELD, MASS. SPACE 6.—This firm will exhibit a three-cylinder, five-passenger touring car and its physicians' special runabout. These cars are equipped with the Atlas two-cycle engine which it is claimed should appeal particularly to physicians who run their own cars, as the construction and operation of the engines is such as not to require an expert to operate and care for them. The physicians' runabout is said to combine with the advantages of the engine, extreme ease of riding, graceful lines and proportions and high grade construction.

BAKER ELECTRIC COMPANY, HARTFORD, CONN. SPACE 25.—The Baker static machine will be shown by this company, together with instruments for measuring amperage and voltage, also amperage of high-frequency and auto-condensation currents. The apparatus is constructed with a special view of standardizing electrotherapeutic measurements. There will also be shown the latest developments in apparatus for successful radiographic work.

BATTLE CREEK SANITARIUM, BATTLE CREEK, MICH. SPACES 89, 90, 91 AND 92.—This exhibit will consist of large photographs and other illustrative material showing the methods and appliances which constitute the Battle Creek Sanitarium system. The exhibit will be in charge of trained nurses from the institution, graduates of the Battle Creek Sanitarium and Hospital Training School for Nurses.

BAUSCH & LOMB OPTICAL COMPANY, ROCHESTER, N. Y. SPACE 80.—The instruments making up this firm's exhibit will, it is claimed, represent the most advanced steps in microscope and microtome construction. The new series of achromatic objectives and research microscopes with large stages, handle arms, and sensitive, durable lever fine adjustments will be of particular interest. The new simplified Minot rotary microtome will be shown as will also recently improved centrifuges of various designs.

BERNSTEIN MANUFACTURING COMPANY, PHILADELPHIA. SPACE 55.—Aseptic hospital furniture and physicians' office specialities will be exhibited by this firm. One piece of apparatus to which the manufacturers will direct special attention is an improved type of dressing sterilizer, which will doubtless prove of interest to those in charge of hospitals. Many other items of a similar character will help fill out the display.

FRANK S. BETZ COMPANY, HAMMOND, IND. SPACES 40, 41, 42 AND 43.—This firm expects to have a man making operating knives at its exhibit—a novelty that will doubtless prove an attraction. A display of knives that range in size from two inches to two feet in length, will also be a feature. There will, in addition, be a general exhibit of batteries, *x*-ray coils, high-frequency and ozone outfits, nebulizers, dry hot air apparatus, operating tables, instrument cabinets and chairs.

BLACK MANUFACTURING COMPANY, CHICAGO. SPACE 3.—Cars of the high wheel type, especially adapted for use by physicians, will be shown here. The exhibit will be in charge of the company's New York manager, and demonstration cars will be on hand to prove the claims made for the company's product. The firm's president and sales manager expect to be in attendance at the exhibit at least one day, for the purpose of showing their appreciation of the large volume of trade that is coming to them from the members of the medical profession.

P. BLAKISTON'S SON & COMPANY, PHILADELPHIA. SPACE 39.—At this exhibit sheets will be shown of a new work, "Diagnostic Methods," by Ralph W. Webster; also Knight and Bryant's "Ear, Nose and Throat." Attention will also be called to Binnie's "Operative Surgery" and Douglas' "Surgical Diseases of the Abdomen," Deaver's "Surgery of the Upper Abdomen," Gordon's "Nervous Diseases," Sluss' "Emergency Surgery," Casper's "Genitourinary Diseases," Rodman's "Diseases of the Breast," Wilcox's "Treatment," Gould's Dictionaries, and other standard books.

BORDEN'S CONDENSED MILK COMPANY, NEW YORK CITY. SPACE 44.—The food product which this firm will exhibit—malted milk—is claimed to be free from starch and cane sugar and to have had the casein converted into albumose. The manufacturers call particular attention to its keeping properties and to the fact that it is made under the best hygienic conditions.

BURROUGHS WELLCOME & COMPANY, NEW YORK CITY.—A selection of "tabloid," "soloid," "enule" and "vaporole" brand products will be shown by this firm as representing some of the latest achievements in scientific pharmacy and research work. Notable among these are "soloid" microscopic stains for the immediate production of fresh staining solutions and "soloid" brand products for the preparation of test solutions used in water, sewage and urine analysis. Other features of this exhibit will be an assortment of compact and complete medical equipments and first-aid cases for pocket, automobile, buggy or saddle.

CAMPBELL ELECTRIC COMPANY, LYNN, MASS.—The leading features claimed for the Campbell coil are simplicity of handling, durability of construction and compactness. The latest model gives the operator the use of eight currents, including a powerful *x*-ray current. Some of the expedients adopted for the protection both of operator and coil are the pilot light, which indicates any passage of current into coil, and the protected spark-gap.

G. W. CARNRICK COMPANY, NEW YORK CITY. SPACE 82.—The products of this company, antithermoline and trypsogen will be exhibited, and descriptive reading matter distributed to physicians. Drawings from microscopic sections of the human pancreas will be exhibited, showing the degenerative changes in the islands of Langerhans, as a result of diabetes.

CLARK & ROBERTS COMPANY, INDIANAPOLIS. SPACE 46.—This firm makes a specialty of high grade surgical furniture, and intends giving an interesting exhibit in this line. These goods are designed to represent the highest type of aseptic furnishings and they are said to be used not only by physicians, but by dentists, in public institutions and even in private houses. The exhibit should prove interesting both from an educational and scientific standpoint.

CLINICAL-ACCOUNT SYSTEM COMPANY, NEW YORK CITY.—This firm's specialty is a simple and compact method of keeping complete records of all details of practice. It is said to have withstood every legal, medical and economic test. The claim is made that by this method and without the use of books, the physician has before him in readily accessible form, full case-histories and a complete system of accounting.

COLUMBUS BUGGY COMPANY, COLUMBUS, OHIO. SPACE 4.—This company will have an exhibit of automobiles, and an electric coupé for use in cities will be given some prominence. For use in the smaller towns and country districts they will show a motor Stanhope which it is claimed can be used 365 days in the year over all kinds of roads and in all kinds of weather.

F. A. DAVIS COMPANY, PHILADELPHIA. SPACE 75.—At this exhibit attention will be directed to "Sajous' Cyclopedia of Practical Medicine." As an outgrowth and natural development of the newer lines of thought, Dr. Sajous' work on "The Internal Secretions" will also come in for a good share of attention. The company will also display other important new books of interest and value.

DEIMEL LINEN MESH SYSTEM COMPANY, NEW YORK CITY. SPACE 48.—This company has, by a special process of manu-

facture, evolved a soft, pliable and porous fabric which it calls "linen-mesh." It is claimed that since its introduction fifteen years ago, the Deimel underwear has received the most friendly and grateful appreciation throughout the world. The exhibit will consist of garments in all styles and weights for men, women and children.

DE VILBISS MANUFACTURING COMPANY, TOLEDO, OHIO. SPACE 88.—This company has for twenty years given special attention to the manufacture of atomizers, nebulizers and kindred appliances. At its exhibit the following subjects will be illustrated: How to apply medicines to surfaces difficult of access; low pressure atomization; the care of instruments and the disposition of instruments when not in use.

DEZENG-STANDARD COMPANY, PHILADELPHIA. SPACE 97.—This company will exhibit its eye-examining and eye-measuring instruments for use by the general profession, the De Zeng electric ophthalmoscope being among them. A special feature will be made of practical demonstrations on living eyes, and the diagnostic possibilities in constitutional disease through the eye, may be witnessed by all who are interested. This exhibit promises to be both interesting and instructive.

ELECTRO-SURGICAL INSTRUMENT COMPANY, ROCHESTER, N. Y. SPACE 84.—As an example of modern instrumental methods of diagnosis and treatment, the exhibit of this firm will be of interest. There will be displayed all the latest devices for the direct, visual examination of the bronchi, stomach, bladder, etc. This company has originated many kinds of electrically lighted instruments and current controllers for both cautery and light.

FAIRCHILD BROTHERS & FOSTER, NEW YORK CITY. SPACE 63.—This exhbit will appeal to physicians who are interested in the applied chemistry of the digestive ferments. It includes preparations for every purpose in therapeutics for which the pancreas and stomach gland extracts, and enzymes thereof, are at present utilized. An extract of the pancreas combined with the sodium salts of the conjugated cholic acids is among the latest "Fairchild" products.

JOSEPH C. FERGUSON, JR., PHILADELPHIA. SPACES 60 AND 61.—An interesting and up-to-date exhibit is promised by this firm, of instruments and supplies used in the treatment of affections of the eye, ear, nose and throat. As the work of this company is devoted exclusively to the manufacture of apparatus and instruments used in these special branches, it is intended to make the display both comprehensive and complete.

FOUTS & HUNTER CARRIAGE MANUFACTURING COMPANY, TERRE HAUTE, IND. SPACE 12.—The "cozy cab" which this firm will exhibit might be termed a composite product—many of the special features which it possesses having been suggested by physicians from widely separated points. The makers claim that the "cozy cab" represents the highest point yet attained in producing a light vehicle which will combine comfort and protection from weather conditions. The principles underlying the construction of the "cozy cab" top have been applied also to automobiles, so that the exhibit should interest every physician.

GLOBE MANUFACTURING COMPANY, BATTLE CREEK, MICH. SPACE 83.—The use of vapor massage, vapor vibration and mechanical vibration in diseases of the ear, nose, throat and lungs will be demonstrated at this exhibit. In addition to its line of nebulizers and air compressors the firm will show something new in the way of vibrators and electric air pumps. The new Byington anesthesia apparatus for administration of warm ether, vapor and air, or gas and oxygen will be a feature.

SAM J. GORMAN COMPANY, CHICAGO. SPACE 18.—A new principle is said to be utilized in the construction of this firm's instrument, the physician's vibragenitant, which is claimed to give an exceedingly high speed and true vibratory stroke. It is a carefully planned and well made instrument, and is guaranteed for five years.

F. A. HARDY & COMPANY, CHICAGO. SPACES 56, 58 AND 59.—An exhibit of ophthalmologic specialties will be made by this company, including the ophthalmometer and special prismatic apparatus. The new Hardy-Van Slyke dynamometer will be given prominence. In surgical instruments the firm will have on exhibition all of the latest eye, ear, nose and throat instruments, particularly those used in the Freer and Ballenger operations. Many other things of scientific and educative interest will form part of the display.

HOLSMAN AUTOMOBILE COMPANY, CHICAGO. SPACE 5.—This firm will exhibit its new friction chain drive machines. It is claimed for these cars that they have the only absolutely direct drive in use on automobiles and in this particular, one of the dreams of automobile engineers has been realized. This company will also exhibit a four-cylinder all-ball-and-roller-bearing motor, which is said to be the only motor of this kind made. The peculiarity of this engine is the entire elimination of connecting-rods and connecting-rod bearings, the pistons being rigidly joined together by a web.

HORLICK'S MALTED MILK COMPANY, RACINE, WIS. SPACES 34, 35 AND 106.—The great care taken by this firm to obtain milk in its original purity, from healthy cows, with proper sanitary environment, and under hygienic conditions, will be emphasized at this exhibit. So also, the fact that the company possesses its own natural spring, the water from which it uses in mashing the grain and growing the barley malt, will be made a matter of attention.

JEWEL CARRIAGE COMPANY, CINCINNATI, OHIO.—"The Breeze" physicians' stanhope motor vehicle which will be exhibited by this firm is an automobile of the high-wheeled type, with physicians' top, and roll-up storm front. It is air-cooled and the company guarantees that it will travel any road that can be gotten over by a horse-drawn vehicle. The tires are solid and the carriage has ample space for instruments or other baggage.

KELLEY-KOETT MANUFACTURING COMPANY, COVINGTON, KY. SPACES 19 AND 21.—The principal attraction of this exhibit will be the Grosse Flamme coil equipment which will be demonstrated from both the alternating and the direct current. The firm will also feature its new mechanical interrupter. The instrument is claimed to be self-cleaning, practically noiseless in operation, and will operate from any good induction coil. There will also be shown a diagraphoscope especially adapted for making screen examinations, and skiagrams of the chest and stomach.

KEYSTONE ELECTRIC COMPANY, PHILADELPHIA.—This firm will exhibit and demonstrate a full line of electrotherapeutic apparatus and will call special attention to its new high-frequency apparatus. If space will permit, dissected and sectional models of its various instruments will be on exhibition, showing the scientific principles on which they are constructed. A competent electrical engineer will be in charge, who will gladly furnish any information desired.

KNY-SCHEERER COMPANY, NEW YORK CITY. SPACES 24, 26, 27 AND 28.—This firm will display the products of its manufacturing plants, located in the United States and in Europe. The scope which this company covers is rather extensive; it comprises (1) high grade surgical instruments; (2) aseptic hospital furniture and sterilizers; (3) electromedical apparatus including a new type of *x*-ray apparatus, and (4) scientific apparatus for laboratory work. Among these will be many new articles which no doubt will be of unusual interest to the surgeon and diagnostician.

LACTOMODE COMPANY, WHEELING, W. VA.—The pasteurizer put out by this company is a compact household outfit consisting of two parts; (1) the lactomode, a glass bottle fitted with a rubber bulb pump for drawing out the lower milk and leaving the "top milk," and (2) the sterilizer composed of two metal vessels, one fitting within the other. The lactomode is placed inside the inner vessel and surrounded with cold water and the larger vessel is then filled with boiling water.

LEA & FEBIGER, NEW YORK CITY. SPACE 65.—There are certain publishers whose names on the title pages of books means that such works are of great value to a considerable section of the profession; for over a century the house of Lea has claimed this distinction. Recent publications of this firm include Dr. J. George Adami's "General Pathology;" Watson & Cunningham's illustrated and practical work on "Genitourinary Diseases" (2 vols.); Ballenger on the "Nose, Throat and Ear;" Dudley's "Gynecology;" Hare's "Practice;" Hare's "Diagnosis" and Hare's "Therapeutics;" the new edition of the "National Standard Dispensatory;" Park's "Pathogenic Micro-organisms," and Woolsey's "Surgical Anatomy." "Gray's Anatomy" and a number of the leading text-books emanate from this company's press, but the most important enterprise in which it is at present engaged is the publication of Osler's "Modern Medicine."

ERNST LEITZ, NEW YORK CITY.—This firm will demonstrate its latest method of illustrating scientific lectures with the Leitz universal projection apparatus (reflectoscope), employing microscopic slides, *x*-ray plates, mounted and unmounted anatomic specimens, and even parts of the human body. It will also illustrate a method of teaching microscopy with the drawing and projection apparatus after Professor Edinger. Unstained micro-organisms will be shown with high power microscopes equipped with the reflecting condenser for observing under dark ground illumination.

CHARLES LENTZ & SONS, PHILADELPHIA.—This firm will show a number of new instruments of special interest to the practitioner. Among these will be Dr. Saxon's apparatus for the application of the Murphy treatment; Dr. Faught's sphygmomanometer, said to be the simplest and most efficient of its kind, and also Dr. Rupert's ether vapor inhaler, for the administration of ether in operations about the mouth and face. Examining and catheterizing electric cystoscopes will also be displayed and a phantom bladder will be used for practical demonstration.

J. B. LIPPINCOTT COMPANY, PHILADELPHIA. SPACES 79 AND 81.—Modern publishing houses spend enormous sums of money in securing the artists to draw the pictures for their new medical books and in obtaining the finest reproductions of these drawings. "Piersol's Human Anatomy" is a profusely illustrated medical book of recent issue, and this firm has decided to exhibit a selection of the most important original water-color drawings for this anatomy at the coming meeting. Special attention also will be called to Dr. James C. Wilson's "Medical Diagnosis;" Dr. Thomas M. Rotch's "The Roentgen Ray in Pediatries;" Dr. G. G. Davis' "Applied Anatomy," and new medical dictionary, which has been compiled under the editorship of Dr. Henry W. Cattell.

MACALASTER, WIGGIN COMPANY, BOSTON.—This company will exhibit a complete line of *x*-ray tubes, as it is making a specialty of tubes for the heaviest kind of apparatus. These tubes, it is claimed, are giving satisfaction to the most discriminating users; they stand up well and make good pictures. There will also be displayed a full line of goods for *x*-ray protection, including tube shields, gloves and aprons.

MALT-DIASTASE COMPANY, NEW YORK CITY.—This company will exhibit maltzyme both in its natural state and separated into its constituent parts. It will also demonstrate the action of the preparation on starches and explain the various methods used in determining the hydrolytic power of diastasic products. The firm will also have on exhibit samples of U. S. P. extracts and various other products with the idea of illustrating the numerous variations in character of products that can be obtained from malt by different methods of manipulation.

MCINTIRE, MAGEE & BROWN COMPANY, PHILADELPHIA. SPACE 62.—It is said that every operator who has tried to hold the ordinary condensing lens between the fingers of the left hand, and at the same time, hold the patient's eyelid open when removing foreign bodies, will be impressed with the usefulness and adaptability of the Dr. Powell's adjustable condensing lens put out by this firm. This instrument, made with adjustable arm to fit over the third finger of the hand, is one of the many interesting things that will be shown in this exhibit.

W. H. MCINTYRE COMPANY, AUBURN, IND. SPACE 11.—This firm's specialty is motor vehicles particularly adapted to the physician in small towns and in rural districts. Its two-cylinder, 14 horse-power, high wheel, solid rubber tire motor buggy offers the country practitioner a vehicle that, it is claimed, will save more than one-half of his "driving" time; will turn the monotony of the daily drive into a genuine pleasure and will enable him to have reading time as well as office hours, thus building up his practice, and with all, have time for social and home pleasures.

MELLIN'S FOOD COMPANY, BOSTON. SPACE 38.—Every practitioner to whom the dietetic problems of infancy are ever arising, will be interested in this exhibit. The company claims that there have been some valuable additions made to its recent publication, the "Mellin's Food Method of Percentage Feeding." The modification of cow's milk to meet the varying requirements of the digestive capabilities of infants is a subject that is claiming the best thought of investigators, and this book is said to afford much valuable information.

WILLIAM MEYER COMPANY, CHICAGO. SPACE 66.—This exhibit will contain among other interesting features a new type of *x*-ray apparatus, capable of rapid radiographic work, the inverse discharge having been eliminated by compound selective windings. This is said to be especially valuable where the alternating current is used because all current can be used from a two or three phase system. Physicians who desire a resonator which can be used directly from the street current service without an induction coil, will have a chance to test its efficiency. A five cell chemical rectifier, converting alternating into direct current for operating a galvanic wall plate will be shown in operation.

E. B. MEYROWITZ, NEW YORK CITY. SPACES 50, 52 AND 54.—*X*-ray coil apparatus with high-frequency attachment will form part of this firm's exhibit, and there will be shown a special instrument for standardizing the different types of high-frequency currents which are delivered to a patient. The claim is made that with this instrument it is possible for a physician to obtain the same dosage from any type of apparatus, providing the apparatus has a sufficient range. A new interrupting device which is said to be capable of producing extra fine detail in skiagraphic work will also be displayed.

C. V. MOSBY MEDICAL BOOK AND PUBLISHING COMPANY, ST. LOUIS. SPACES 71 AND 72.—A complete line of English, French and German medical publications will be shown by this firm. Of its own line there will be Crossen's "Gynecology," Munro's "Suggestive Therapeutics," Lockard's "Tuberculosis of the Nose and Throat," Hirschman's "Handbook of Rectal Diseases," and Schorer's "Vaccine and Serum Diagnosis." The company will also be the special agents for Burghard's "Operative Surgery" and "A System of Syphilis" by Power and Murphy.

V. MUELLER & COMPANY, CHICAGO. SPACES 85 AND 87.—These manufacturers of surgical instruments will have an exhibit of interest to specialists in every branch of surgery. They will demonstrate to the profession their latest instruments and apparatus for use in surgery of the larynx, esophagus and stomach. Examining and operating instruments for genitourinary work, as well as new instruments for blood examination, etc., should make a visit to this exhibit time well spent.

H. K. MULFORD COMPANY, PHILADELPHIA. SPACES 29 AND 31.—Here will be displayed tuberculins, bacterial vaccines, diphtheria antitoxin, serums, cultures of bacteria, wax models of diphtheritic infections from postmortem cases, models of smallpox and of skin diseases with which the smallpox eruption is liable to be confused and serums in scales for internal use. The firm's working bulletins on tuberculins and bacterial vaccines, educational charts, pictures, etc., will be shown; also an illustration of practical and impractical "concentration" of antitoxin.

PHILADELPHIA SURGICAL SPECIALTY COMPANY, PHILADELPHIA. SPACE 103.—The "multum in parvo" surgical case manufactured by this firm will be made a special feature of its exhibit. This "simplex surgeon," as it is called by its makers, is an easily sterilizable metal tube containing a straight bistoury, curved bistoury, eye-spud, curette, probe and combination forceps and hemostat. The complete outfit can be carried in the vest pocket.

POMEROY COMPANY, NEW YORK CITY. SPACES 101A AND 101B.—The two features of this exhibit will be: (1) The Pomeroy frame truss and a demonstration of the frame method of truss fitting, which consists in controlling the hernia without any spring pressure; (2) the Pomeroy corset which has been specially designed for the retention of movable kidney and other displacements. It is claimed that in this corset the theoretical requirements of physicians for such an article have been made practical.

PROMETHEUS ELECTRIC COMPANY, NEW YORK CITY. SPACE 102A.—Electric sterilizers are extensively used in office and hospital practice for the sterilizing of surgical instruments. The electric sterilizer made by this firm will, it is claimed, boil water in less time than it takes over gas or alcohol, and with ordinary care will give good service for many years. They are the result of years of experience in the construction and equipment of electric sterilizers and are said to have proven very satisfactory wherever used.

RANDALL-FAICHNEY COMPANY, BOSTON. SPACES 13 AND 20. In its exhibit, this firm is planning to present an old subject in a somewhat new light. Basing the plans on the claim that,

for years, this company has maintained a higher standard of testing and grading clinical thermometers than was commercially required, and that this action lacks full appreciation only because of too limited knowledge on the subject, it intends to demonstrate the careful methods pursued. A line of oil grease guns for automobiles will also be exhibited.

REBMAN COMPANY, NEW YORK CITY. SPACE 98.—The special attraction at this stand will be pictures and illustrations of skin lesions reproduced in the natural colors. For the purpose of illustrating lectures on diseases, they are said to be unexcelled. The collection contained in the various publications in which they appear, is bound to prove of value to the general practitioner who has no opportunity of visiting the various institutes in Europe where the originals of these illustrations are to be found.

REINSCHILD CHEMICAL COMPANY, NEW YORK CITY. SPACE 69.—This firm will have on exhibition its new organic iron and manganese salts. These, it is claimed, can readily be dissolved in cold water, furnishing neutral, clear inodorous liquors; this enables physicians to have their liquors made when wanted, in any quantity, and always fresh. Professor Schmidt's regulin for chronic constipation will also be shown and sampled, as well as other specialties.

ROBERTSON MANUFACTURING COMPANY, CINCINNATI. SPACE 102B.—A new line of compressed air apparatus, single and multiple, nebulizers, atomizers, powder blowers, vacuum pumps, etc., will form part of this firm's exhibit; also a new sanitary hydro-vacuum floor cleaner adapted for use in sick rooms, hospitals, sanitariums, and physicans' offices. The cost of these various appliances has, it is claimed, been greatly reduced, while the efficiency has been fully maintained.

ROESSLER & HASSLACHER CHEMICAL COMPANY, NEW YORK CITY.—The articles this firm intends exhibiting are its special oxygen generator, the peroxids of magnesium and zinc, and the perborates of sodium. The chief claims made for its generator of oxygen are that the gas formed is absolutely pure, the outfit is small and simple, and the ease with which the gas can be made should extend the use of oxygen as a therapeutic agent.

ROSE MANUFACTURING COMPANY, PHILADELPHIA. SPACE 7.—The albosol diagnostic light will be conspicuously exhibited in the automobile section by this firm. The manufacturers of the Albosol light are also large manufacturers of automobile searchlights and acetylene gas generators, designated by the trade-mark "Neverout." A number of unique models will be shown, suitable for physicians' automobiles and carriages, such as small searchlights mounted on movable fixtures, enabling the doctor to read house numbers when making night calls.

W. B. SAUNDERS COMPANY, PHILADELPHIA. SPACES 93 AND 94.—This firm's exhibit will occupy a very prominent position just opposite the bureau of registration and information and the postoffice. Of the new books to be shown, the following are of particular interest: Keen's "Surgery," Kelly and Noble's "Gynecology and Abdominal Surgery," Gant's "Constipation and Intestinal Obstruction," Bonney's "Pulmonary Tuberculosis," DaCosta's "Physical Diagnosis," Jordon's "General Bacteriology," "Bier's Hyperemic Treatment" by Meyer and Schnieder, Schamberg's "Skin Diseases and Eruptive Fevers," and Bondless' "Medical Gynecology." There will also be shown advance sheets and illustrations of Kelly and Cullen's "Myomata of the Uterus," Volume V of Keen's "Surgery," Arny's "Pharmacy," McKenzie's "Exercises" and many others.

SCANLAN-MORRIS COMPANY, MADISON, WIS. SPACES 47 AND 49.—This firm will exhibit a line of porcelain enameled steel furniture and sterilizing apparatus for hospitals and physicians' offices. Its porcelain enameled furniture, introduced some eight years ago, is said to be rapidly taking the place of glass, owing to its cleanliness and durability. In high-pressure sterilizing apparatus, it will show a new construction, which is claimed to conform to the specifications authorized in advanced engineering practice, embodying the latest improvements in apparatus of this type.

SCHEIDEL-WESTERN *X*-RAY COIL COMPANY, CHICAGO. SPACES 77 AND 78.—This firm will make a special feature of its system of induction coils and compression apparatus for the making of detailed skiagraphs by the process of elimination. This method requires two induction coils arranged for exciting two *x*-ray tubes at once, the tubes being set at right angles to each other. The new apparatus will be demonstrated in full.

SCHIEFFELIN & COMPANY, NEW YORK CITY. SPACES 95 AND 96.—At this exhibit the products of the Lederle Antitoxin Laboratories are to be displayed, including diphtheria antitoxin, tetanus antitoxin, antistreptococcic serum and vaccine virus. The results of further improvements in the method for refining antitoxic sera will be demonstrated. There is also to be shown the body cavity disinfectant prepared in the Lederle Antitoxin Laboratories, in the form of a pure culture of the *Bacillus Bulgaricus* grown on media suitable for injection into these cavities.

SMITH, KLINE & FRENCH COMPANY, PHILADELPHIA. SPACE 86.—This exhibit will be entirely in the interest of Eskay's Food. Stock packages will be shown by the firm and in addition a practical demonstration will be given in the way of display jars, showing the composition of the food. One jar will contain the cereals, one jar the sugar of milk and eggs, while another jar will show the finished product. It will also demonstrate how the curd of cow's milk is formed in the human stomach when it meets the gastric juice.

SPEAR-MARSHALL COMPANY, CHICAGO. SPACE 70.—This firm will exhibit its leucodescent therapeutic lamp, for which a wide field of indication is claimed. The present apparatus is said to be the result of years of clinical and laboratory research. Within the past year it has been greatly improved, and its manufacturers now claim that it is the embodiment of progress in the use of radiant light in therapeutics.

E. R. SQUIBB & SONS, NEW YORK CITY. SPACES 36 AND 37.—Products representing its entire line—chemicals, pharmaceuticals, N. F. preparations, and tablets will be shown by this firm. The exhibit will be in charge of a competent corps of professional men, and, among other things, demonstrations will be given showing the rapid and complete disintegration of the Squibb tablets. Specimens of important National Formulary preparations will be another prominent feature.

DR. KATHERINE L. STORM, PHILADELPHIA. SPACE 104.—The exhibit of the "Storm" abdominal supporter will be in charge of some of the agents of the Storm Supporter Company. The inventor of this supporter reports that she has had more than seventeen hundred mail requests for information concerning this belt since she began advertising in medical journals. This would seem to indicate that the medical profession is interested in scientific mechanical support.

SURGICAL SUPPLY IMPORTING COMPANY, NEW YORK CITY. SPACE 45.—While this firm does not sell to physicians direct, it will have on exhibition a number of articles for which they are agents. Among these will be Bender's "Ideal Bandages," the seamless elastic hosiery of Rompler's, Delamotte's bougies and catheters and the high-grade surgical instruments manufactured by Alb. Stille of Stockholm.

TRUAX, GREENE & COMPANY, CHICAGO. SPACES 51 AND 53.—One of the features of this exhibit will be an automatic electric incubator in which both temperature and moisture are automatically controlled by electricity. It is said to be built on an entirely new principle, which can be applied to either infant incubators or to those used for bacteriologic purposes. Surgical instruments and physicians' specialties of standard patterns and many later models will be shown by this firm.

VAN ORDEN CORSET COMPANY, NEW YORK CITY.—This firm will demonstrate their surgical belt corset, which is said to differ from the ordinary abdominal belt with corset worn over it (as the average woman now wears it) by eliminating two opposing pressures—upward from the belt, downward from the corset. It is said to give definite support from the spine just where the physician prescribes it, and a firm comfortable circular belt covers the entire curve of abdomen and hips.

VICTOR ELECTRIC COMPANY, CHICAGO. SPACES 73 AND 74.—This company will call special attention to its improved form of portable *x*-ray and high-frequency apparatus. It is claimed that this outfit, which is in part designed on the Tesla principle, makes it possible to take radiographs which heretofore have required the use of much larger and expensive coils. The company will show a therapeutic arc lamp of new and original design, and will also demonstrate an improved form of apparatus for producing and controlling the sinusoidal currents.

WALSH WINDOW TENT COMPANY, MORRIS, ILL. SPACE 76.—This firm's new inside tent, which it claims is the last word

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[*For other information see second page following reading matter*]

SATURDAY, MAY 1, 1909

SALVAGE IN LIFE-INSURANCE

An interesting suggestion was brought before a recent meeting of the Association of Life-Insurance Presidents by Dr. Burnside Foster, editor of the *St. Paul Medical Journal*. It was in line with that of Prof. Irving Fisher, to which we referred.[1] The latter suggested that there were good financial, as well as philanthropic, reasons why the insurance companies should interest themselves in the extension of human life now made possible by the progress of sanitary science. He proposed the assignment of a sum of $200,000 a year by the companies to attain this end, by "the sanitary education of the public" and by "stimulating municipalities, states and the federal government to greater efforts for the preservation of health."

The suggestion Dr. Foster makes is that life-insurance companies should keep themselves informed as to the physical condition of their policy-holders by offering to give them free medical re-examination at five-yearly or even shorter intervals. The advantage expected to accrue to the companies consists in the saving consequent on the extension of the average life of the policy-holders.

Many objections were raised to this suggestion. Most life-insurance officials were convinced that the mere proposal of such an examination would "scare policy-holders almost to death." The attendant expense, too, seemed to many of those present to put it out of the question. Some even declared that if, after such re-examination, a policy-holder was declared to be in good health, he would be much more inclined to let his policy lapse if it were difficult to keep up.

Many of these objections hold just as strongly against the preliminary examination for life-insurance. Indeed, half a century ago they were urged so strenuously that it took some time to induce the companies to adopt the principle of requiring a preliminary medical examination of all applicants. No doubt, to some timorous people this medical examination is a trying ordeal; it causes some to hesitate and restrains others from taking out insurance at all. But custom has largely broken down this dread; most persons now regard the medical examination as a matter of course, and some welcome it.

The expense of this examination and the fear that it would deter applicants meant so much to life-insurance companies that they hesitated long before adopting preliminary examinations; then the smaller companies took it up half-heartedly. It was soon demonstrated, however, that the medical examinations of a single year saved the company enough money to run the medical department for many years.

None of the objections against Dr. Foster's suggestion will have weight for those who know the story of life-insurance in its relation to medical examination. There seems no doubt that such periodical examinations might be of great service in prolonging life. Diseases like tuberculosis, diabetes, and even nephritis, may run so insidious a course as not to be suspected at all by the patient, while a physician may readily discover the early symptoms and by proper directions enable the patient to avoid the more serious manifestations for years—perhaps for a normal term of life.

Provision against loss, though new in life-insurance, is not a new idea in other branches of insurance. The fire-insurance companies now maintain salvage corps whose duty it is, in case of fire, to go into insured buildings and protect valuable property from damage by fire or water, thus saving many things which would otherwise be a total loss to the company. When the idea was first broached, it was objected that such a salvage corps would be expensive; that its presence in houses would be resented by owners; and that insurers would be afraid of having damaged goods imposed on them by the insurance company. Experience, however, has proved the value of the salvage corps, and now there is no institution more firmly rooted in fire-insurance.

It has often been suggested that a medicobiologic examination at regular intervals—a measure foreshadowed by this suggestion for life-insurance companies—would lengthen life and save much suffering. If death were not inevitable and suffering not preventable, then men might be justified in refusing to provide for the one and to guard against the other; but "life is a dangerous thing at best, and very few of us get out of it alive." Death can not be postponed by a childish refusal to look certainty in the face. Sometimes, however, it can be deferred—often the worst trials attendant on it can be mitigated—by a seasonable and resolute determination to know the truth; and a realization of these facts is constantly growing among intelligent people.

It seems clear that the suggestion as to re-examination of policy-holders must bear fruit, if not now, then at some time when insurance officials shall be large-minded and progressive enough to appreciate its value.

1. THE JOURNAL A. M. A., April 17, 1909, p. 1262.

THE MANNER OF EXTENSION OF CANCER

If we stop to consider the actual rate at which lymph must travel in the finer lymphatics, it becomes at once evident that the velocity must be far too low to permit it to have much effect in washing cancer cells or similar objects from one place to another. Furthermore, the

very fact that in cancer the lymphatics are extensively blocked by cancer growth must make the rate of lymph flow rather less than normal. Nevertheless the assumption and the teaching until quite recently have been almost universal that cancer cells were washed from the primary growth to the regional glands by the lymph stream. By his demonstrations of the continuity of cancer growth from the primary tumor into the regional lymphatic channels, spreading centrifugally by direct extension and largely independently of any washing away of cells, Handley did a great service to surgical pathology and surgical practice, for he demonstrated once and for all the necessity of removing as much as possible of the tissue intervening between the primary tumor and its lymphatic metastases. This "permeation theory" of cancer growth has, as Handley himself says, been accepted and applied with especial readiness by American surgeons, while Continental surgeons have been slow to appreciate its significance. In a recent address[1] he discusses the reparative and healing processes that take place in growing cancers, and their bearing on the extension of malignant growths by permeation.

The life cycle of a typical carcinoma he considers to be somewhat as follows: At first the growth extends on all sides in a centrifugal manner into the tissue interspaces, and thence into the lymphatic vessels; at this time cancer cells may be swept away from their attachments and into the regional glands, but this is a minor and subsidiary process. As the permeating growth spreads, the growing edge becomes cut off from the primary center by fibrosis, and as the edge continues to spread invisibly, small macroscopic tumor nodules manifest themselves in the area of fibrosis at points where the cancer cells have not been entirely destroyed by the fibrosis. Soon the central part of the primary growth also begins to become fibrotic, degenerates, and forms an ulcer spreading centrifugally likewise. If the patient lives long enough the proliferative energy of the primary and nearest secondary growths may become exhausted, so that the ulcer heals and the satellite nodules vanish, while the permeative growing edge usually continues its spread, leaving in its track fresh secondary nodules. In other words, every aggregation of cancer cells has a definite life cycle, tending to grow for a time and then to degenerate spontaneously and undergo fibrosis, these changes progressing from the center step by step toward the periphery. Ordinarily, this life cycle is interrupted by the death of the host of the cancer, but in the more slowly growing cancers there is often time for the healing processes to become very evident in the centers of both primary and secondary tumors. As Handley has demonstrated, if the spread of subcutaneous cancer nodules is watched carefully it will be found that the appearance of new nodules farther from the center is accompanied by disappearance of the older, more centrally located secondaries, and microscopic studies may prove that the cancer cells have entirely vanished from these regions.

As a matter of fact, the symptoms of cancer are largely caused by the defensive fibrotic processes rather than by the growth of the tumor cells. The typical features of mammary cancer, such as retraction of the nipple, flattening of the breast, and fixation of the skin, are all produced by the defensive fibrosis rather than by the destructive infiltration and growth processes. The dense thickening of the skin in cancer *en cuirasse* may be due solely to fibrosis without any existing invasion by cancer cells being demonstrable, and the edema of the arm is probably caused by lymphatic fibrosis resulting from the natural curative processes which accompany the growing cancer.

Handley's conception of the mechanism of extension and metastasis of cancer, based on careful clinical and laboratory studies, seems to be pathologically sound and practically important, and in any case it carries with it a logical picture of the events that are taking place in growing cancers which can not fail to be of help to the surgeon who has to remove and treat such conditions.

1. Brit. Med. Jour., March 6, 1909; abstracted in THE JOURNAL, April 3, 1909, p. 1146.

ABSOLUTE VALUES IN PERCUSSION

The statement is frequently heard in connection with the physical signs of early pulmonary tuberculosis that any demonstrable change in the percussion note over the lungs indicates a process which can no longer be designated as incipient. The impression is almost universal that abnormalities in the auscultatory phenomena precede by a considerable period of time any reliable signs that may be elicited by percussion. This conception has been challenged by C. E. Waller,[1] of Halahult, Sweden, who urges that more attention be paid to absolute findings in the percussion of any given area. He thinks that the disrepute into which percussion has fallen is due in a large measure to the habit of employing only the comparative method, in which the percussion note over analogous areas on the two sides of the chest are contrasted. The opportunity for errors of interpretation in the use of this method is obvious, yet it is true that it is largely employed to the exclusion of such careful consideration of the percussion note in itself as is given to the quality of the breath sounds or of the voice transmission.

Waller describes various degrees of impaired resonance which, he asserts, may be absolutely identified and which succeed each other from the earliest stage of tuberculous infiltration to the stage of absolute solidification. The earliest change noted is a shortening of the typical non-tympanitic pulmonary note brought out at the end of quiet expiration or the beginning of inspiration by very light percussion. At this time,

1. Am. Jour. Med. Sci., April, 1909.

there is also added a slight tympanitic element due to the relaxation of the congested lung. The stage beyond this lacks the non-tympanitic sound during the whole respiratory phase with light percussion unless the depth of respiration is increased, when it appears when the lungs are full. With more intense infiltration the normal pulmonary note may be brought with slight increase in the force of percussion, though this increase will not suffice for the next stage of consolidation. The most forceful percussion stroke used—and this is only relatively strong—distinguishes a fourth and fifth degree of dulness in one of which the pulmonary note may still be recognized and in the other not.

No description of percussion technic or of the sounds produced will convey to every reader the same impression and so no scale of dulness such as that described can ever be of very much value as a general standard, but for the use of any one observer such a scale would prove of great value in recording changes in a given chest or as a standard of comparison. In these days when so many tempting short cuts to diagnosis are being offered the practitioner it is gratifying to record an effort toward refinement in physical diagnosis on which, after all, must rest the final judgment as to the condition of the patient. Percussion is an aid which deserves more attention than has been accorded it of late.

THE ATLANTIC CITY SESSION

We publish this week considerable matter relative to the coming session of the American Medical Association. While the local profession and the citizens of Atlantic City are making special efforts to assure a most enjoyable time for those who attend, and while the location and its environs are admirably adapted for rest and recuperation, still after all, the scientific part is the most important. A casual glance over the Section programs, which appear in this issue, will show that the scientific work will be fully up to the high standard of recent years. All of the programs are excellent, some exceptionally so.

Attention should be called to a symposium in the Section on Pharmacology and Therapeutics. This takes up, from every viewpoint, one of the most practical and live questions of the day, "The Present Status of Serum and Vaccine Therapy with Special Reference to the Products on the American Market." As will be noticed, the subject is to be handled in all its phases by authorities, and the result of such a discussion must throw light on many obscure points.

Another important symposium is that in the Section on Practice of Medicine on "Physical Therapeutics"—certainly a topic to attract interest and discussion. Another practical question will be treated in a symposium in the Section on Nervous and Mental Diseases, "The Sero-Diagnosis of Syphilis and Its Relation to Diseases of the Nervous System." The Section on Pathology and Physiology is especially to be congratulated on the splendid manner in which many of the live questions of the day in physiology and pathology will be treated by well-known men, including some outside of the profession who are eminent in these departments.

Taking it all in all, we believe we are justified in saying that the outlook for splendid scientific work at the coming Atlantic City session is more promising than at any former meeting.

A PRACTICAL METHOD OF REVISING THE PHARMACOPEIA

A practical measure, looking toward the inclusion in the Pharmacopeia of unofficial remedies that stand the test of clinical experience, has been initiated by the Section on Ophthalmology of the American Medical Association. From fifty of the best-known drugs selected from "New and Nonofficial Remedies," fourteen were culled by the committee of the section as having a sufficiently wide employment by ophthalmic surgeons to justify their general recognition. A list of these fourteen drugs was sent on a return postal card to each of the 935 members of the section, with instructions to mark the six drugs which seemed most useful. The replies will be tabulated, and those remedies that have received the largest number of votes will be officially recommended by the section for inclusion in the next revision of the Pharmacopeia. The fourteen remedies named are: adrenalin, alypin, argyrol, betaeucain hydrochlorid, chloretone, collargol, dionin, euphthalmin, fibrolysin, fluorescein, holocain hydrochlorid, novocain, protargol and stovain. The idea seems eminently practical and its adoption by the other sections would furnish a mass of cumulative evidence in regard to many unofficial preparations that will be of great value from a clinical viewpoint. Moreover, it would cover so broad an area of investigation as to place the results beyond the possibility of any charge of partiality.

THE INSANE AND JURIES

The tendency of juries (often manifested also by judges in habeas corpus proceedings) to give the benefit of the doubt to those wishing to escape from confinement as lunatics is well known. In his latest report Dr. Robert B. Lamb, superintendent of the State Hospital for the Criminal Insane at Matteawan, New York, has followed up the record of the thirty-four inmates who have been discharged by juries from that hospital as sound in mind. According to his report, fourteen of these returned eventually, either to prison or to the asylum, eight became troublesome to their families, three were unable to earn a livelihood, six disappeared, two committed suicide, and only a single one of the thirty-four was able to support himself partially after his discharge. This is a good commentary on the practice of freeing lunatics by the courts; and it will be fortunate if sooner or later there is not some fatal result from the

release of these patients, twelve of whom were charged with murder in the first degree. It may be said that Matteawan is an asylum for criminals which therefore may not fairly be compared with institutions for the non-criminal insane. There is, however, some reason to be given for the detention of each insane person confined in an institution; for, with the increase of insanity at the present time in most of our communities and the consequent crowded conditions of the asylums, the officials are not excessively anxious to retain any patients that can safely be discharged. Yet Dr. Lamb's report avers that "in all cases referred to which have been submitted to juries for verdict, the finding has been uniformly in favor of the lunatic." Dr. Lamb suggests that the methods required for the confinement of the criminal lunatic should be demanded for his release—the certificate of two competent medical examiners and the approval of the judge of a court of record. This rule could be applied as well to inmates of non-criminal asylums. It is mistaken kindness to the individual, as well as a grave injustice to society, to turn adrift an irresponsible derelict, incapable of pursuing a true course and threatening wreck to others.

Medical News

ALABAMA

Graduation Made a Requirement.—It is announced that on and after July all applicants for license to practice medicine in the state must be graduates of reputable medical colleges. This leaves only four states, Arkansas, Massachusetts, Mississippi and Tennessee, which continue to examine non-graduates in medicine for license to practice.

Hospital Staff Appointed.—The following medical and surgical staff has been appointed for the Mobile City Hospital for the six months beginning April 1: Surgery—Drs. William McD. Mastin, Douglas G. Campbell, Harry T. Inge, James J. Peterson, and Joseph Schwartz; medicine—Drs. Ernest S. Feagin, Neal E. Sellers, Nicholas A. Madler, and Lee W. Roe; dermatology—Dr. M. Toulmin Gaines; obstetrics—Dr. R. Clarence Jones; pathology—Dr. C. Winthrop; eye, ear, nose and throat—Dr. Alfred E. Maumenee; and county physician—Dr. William G. Ward.

Society Meetings.—At the annual meeting of the Autauga County Medical Society, held in Prattville, March 11, the following officers were elected: Dr. Harry E. Downs, Billingsley, president; Dr. Clarence C. Rice, Prattville, vice-president; Dr. John E. Wilkinson, Prattville, secretary-treasurer; Dr. Robert M. Davis, Prattville, health officer; Drs. Malcolm D. Smith, John W. Hagler, Clarence C. Rice, Robert M. Golson, and Robert M. Davis, all of Prattville, county board of health; Drs. Harry E. Downs, Billingsley, and A. James Tankersley, Autaugaville, delegates to the state association, and Dr. Clarence C. Rice and John E. Wilkinson, Jr., Prattville, alternates.—At the annual meeting of Blount County Medical Society, held in Oneonta, April 6, the following officers were elected: Dr. Samuel T. Shepherd, Lehigh, president; Dr. David S. Moore, Clarence, vice-president and delegate to the state medical society; Dr. Marvin Denton, Cleveland, secretary-treasurer; Dr. William C. Miles, Village Springs, delegate to the state medical society, and Floyd G. Donehoo, Oneonta, city and county physician.

CONNECTICUT

February Deaths.—There were 1,306 deaths reported to the State Board of Health during February, 58 less than for January, 209 less than for February, 1908, and 99 less than the average February deaths for the five years preceding. The death rate was equivalent to 15.1 per 1,000 per annum. The deaths from infectious diseases were 191, or 14.6 per cent. of the total mortality.

Infectious Diseases.—During February, there were reported to the state board of health more than 783 cases of measles in 39 towns, 129 cases of scarlet fever in 32 towns, 2 cases of cerebrospinal meningitis in 2 towns, 152 cases of diphtheria in 35 towns, more than 91 cases of whooping cough in 15 towns, 23 cases of typhoid fever in 13 towns, and 105 cases of consumption in 29 towns.

Society Meetings.—At the one hundred and seventeenth annual meeting of Fairfield County Medical Society, held in Bridgeport, April 13, the following officers were elected: Dr. Samuel Pierson, Stamford, president; Dr. Herbert E. Smyth, Bridgeport, vice-president; Dr. Frank W. Stevens, Bridgeport, secretary; Dr. James D. Gold, Bridgeport, treasurer; Dr. Samuel M. Garlick, Bridgeport, councilor; Drs. William S. Randall, Shelton, Edward S. M. Smith, Bridgeport, and David C. Brown, Danbury, censors; and Drs. James D. Gold, Bridgeport, William J. Tracey, Norwalk, George H. Noxon, Darien, John W. Wright, Bridgeport, and Frank W. Stevens, Bridgeport, delegates to the state society.——The one hundred and seventeenth annual meeting of the Middlesex County Medical Society was held in Middletown, April 8, when the following officers were elected: President, Dr. Michael D. Murphy, Middletown; vice-president, Dr. Mathew W. Plumstead, East Haddam; censor, Dr. James M. Keniston and James H. Kingman, Middletown; county reporter, Dr. James Murphy, Middletown; state councilor, Dr. James H. Kingman, Middletown, and delegates to the state society, Drs. Charles E. Stanley and Charles B. Young, Middletown.——Hartford County Medical Society, at its one hundred and seventeenth annual meeting, held in Hartford, April 6, elected the following officers: President, Dr. Charles D. Alton, Hartford; vice-president, Dr. Herman Strosser, New Britain; secretary-treasurer, Dr. Frederick B. Willard, Hartford; councilor, Dr. Oliver C. Smith, Hartford; censor, Dr. Edward R. Lampson, Jr., Hartford, and delegates to the state society, Drs. Frederick B. Willard, Phineas H. Ingalls, Michael H. Gill and John H. Rose, Hartford, Harry B. Rising, Glastonbury, William R. Tinker, South Manchester, and Erastus P. Swasey, New Britain.——At the one hundred and eighteenth annual meeting of the New London County Medical Society, held in Norwich, April 1, the following officers were elected: President, Dr. George H. Jennings, Jewett City; vice-president, Dr. Patrick J. Cassidy, Norwich; clerk, Dr. Edwin C. Chipman, New London; councilor, Dr. Edward P. Brewer, Norwich; censor, Dr. Charles E. Brayton, Stonington (re-elected), and delegates to the state society, Drs. Dennis J. Shahan, Norwich, and George N. Miner, Waterford.

COLORADO

Appropriation for Feeble-Minded.—The legislature has made an appropriation for the establishment of a State Home for Feeble-Minded on farm lands near Denver.

Additions to Hospitals.—The Steele Memorial Hospital, the municipal hospital of Denver for contagious diseases, is about to build an addition costing $20,000.——St. Joseph's Hospital, Denver, will build an addition to be used as a home for nurses.

Entitled to Salary as Trustee.—The assistant attorney-general has decided that Dr. William W. Grant, Denver, is entitled to salary during his term of office as trustee of the State Hospital for the Insane, in spite of the fact that the legislature two years ago abolished salaried boards.

Variations in Deaths.—The ninth biennial report of the State Board of Health shows a substantial decrease in deaths from typhoid fever and scarlet fever, but an increase of nearly 100 per cent. in deaths from diphtheria. An effort will be made to introduce the free distribution of antitoxin throughout the state.

The People Must Now Decide.—Governor Shafroth on March 23 signed House bill No. 50, which provides for the submission to the people of a constitutional amendment permitting the establishment of a medical department of the State University in Denver, in which students may take the last two years of their medical course.

Personal.—Dr. Abraham L. Fugard has been elected mayor of Pueblo.——Dr. Ralph E. Morris, Cripple Creek, has been appointed registrar of Teller county.——Dr. Richard W. Corwin, Pueblo, has been appointed a member of the board of regents of the American School of Archeology, Santa Fe, N. M.——Dr. Clara M. Moore, Denver, has been appointed physician in charge of the woman's department of the State Hospital for the Insane, Pueblo.

Asks Medical Society to Name Candidate for City Physician.—At a special meeting of the Larimer County Medical Society, April 21, a communication was read from the mayor of Fort Collins, Colo., stating that it was the wish of the majority of the aldermen that the society name a candidate for the position of city physician, to be acted on at a special meeting of the council. The invitation of the mayor was accepted, the society balloted for a nominee for the position, and Dr. Albert W. Rew was declared the unanimous choice of the society.

DELAWARE

Antituberculosis Meeting.—The Delaware Antituberculosis Society, at its annual meeting, held in Wilmington April 13, elected the following physicians, members of its board of directors: Dr. John J. Black, Newcastle, and Drs. Harold L. Springer, Albert Robin, John P. Wales, Peter W. Tomlinson and Abram E. Frantz, of Wilmington.

State Board of Health Changes.—The personnel of the State Board of Health has been changed by the declination of the president, Dr. Ezekiel W. Cooper, Camden, to accept reappointment. Dr. John W. DeWitt, St. Georges, has beeen elected president; Dr. Abram E. Frantz, Wilmington, has been re-elected secretary-treasurer, and Drs. William F. Davis, Dover, and William F. Haines, Seaford, have been elected members of the board.

Work Against Tuberculosis.—Dr. Albert Robin, Wilmington, in charge of the Wilmington Dispensary for Tuberculosis, in his annual report, states that 114 new patients were seen during the year; 349 visits were made to the dispensary by these patients, and that visiting nurses made 1,679 visits to the homes of patients. He recommends that the dispensary be located in a more central part of the city and in a building by itself; that additional nurses be provided as soon as the work demands it, and that more physicians be invited to work in the dispensary as well as in the homes of patients.

INDIANA

Protest Against Use of Names.—The Wayne County Medical Association has issued a second protest against the use of names of its members in lay journals in connection with medical and surgical cases.

Indiana University Adopts Higher Requirements.—At a recent meeting the faculty of Indiana University School of Medicine voted unanimously to require for entrance in adition to a four-year high school course, one year of collegiate work beginning this fall and two years of collegiate work beginning in the fall of 1910.

Appeal Regarding Meningitis.—Dr. John H. N. Hurty, Indianapolis, secretary of the State Board of Health, has issued an appeal entitled "Let Us Save 200 Lives This Year from Meningitis," in which he urges the use of the Flexner antimeningitis serum which can be obtained without expense by any practitioner of the state from Dr. Walter D. Hoskins, Indianapolis, or Dr. Homer Wooley, Bloomington, both of whom are professors in the medical department of the Indiana Medical University. It is to be hoped, says Dr. Hurty, that the use of the anti-meningitic serum will not be delayed, as was the case with the diphtheria antitoxin.

ILLINOIS

Personal.—Dr. William B. Peck, Freeport, has returned from Europe.——Dr. Louisa L. Munch, Joliet, was operated on for appendicitis in Mary Thompson Hospital, Chicago, April 14.——Dr. Orville B. Blackman, Dixon, was seized with a cerebral hemorrhage, April 20, but is reported to be improving.

Conference on Public Health.—A public health conference was held at the University of Illinois, Urbana, April 23. In the absence of the president, Edmund A. James, the vice-president, Prof. Thomas J. Burrill, delivered the address of welcome. Dr. George W. Webster, Chicago, president of the State Board of Health, spoke on the work of the board and pointed out the deficiencies of our state health organization. He suggested that the Governor should appoint a commission to study the health laws and organizations of other states and recommended the needed improvements in this state. More comprehensive instruction in public health and closer cooperation between the university and the various state boards which are now concerned with the public health are necessary. Dr. James A. Egan reviewed the existing cooperation between the university and the State Board of Health and considered the proposed water survey legislation in some detail. He favored retaining the laboratory of the board at Springfield. Vice-President Burrill discussed the proposed course in sanitary science at Cornell University and the advisability of undertaking similar work here, indicating the scope of the proposed organization. Dr. William A. Evans, commissioner of health of Chicago, gave a thorough discussion of the management of the Chicago milk problem. The magnitude of this part of the work may be imagined from the fact that milk is received from 12,000 farms, situated in four states. Every farm is inspected and record maps of the farm, indicating its equipment, its sanitary condition and its surroundings, are made by the inspectors and preserved. The sampling and testing of the milk is a large undertaking. Over 30,000 eight-gallon cans of milk are received daily. The enforcement of the new ordinances requiring satisfactory tuberculin test of the cows or pasteurization of the milk is proving very satisfactory, and the educational effect upon the milk producers is exceedingly valuable. Prof. W. T. Sedgwick, Boston, spoke on the profession of health officer as offering a career for trained young men, and mentioned several of the smaller towns in the East where such men devoted their full time to local sanitary matters, to the great benefit of the community. He pointed out the pernicious influence of politics upon public health work. Prof. A. N. Talbot considered the work of the municipal engineer and some of the larger sanitary engineering problems of the state. Dr. John Marten, health officer of Tolono, spoke of the work of the local health officer, pointing out the very serious attitude of the Illinois public in expecting its health officers to do efficient work, without paying them anything for their services or even defraying the necessary expenses of the work. The greatest resource of the local health officer is the aid of the State Board of Health and the university, when he calls on them for advice. These resolutions were adopted:

Resolved, That an annual conference of health officers should be held in the state of Illinois, to provide for the instruction of health officers in recent advances of science and of practical experience related to the public health, for the free discussion of public health problems in the state, and for the expression of opinion by the assembled health officers on methods of promoting the public health, and related subjects.

Resolved, That the state university be asked to provide opportunity for more systematic investigation and more comprehensive instruction in hygiene, sanitary science and the sciences related thereto.

Resolved, That a committee of three be appointed by the chair to present to the university and to the State Board of Health a plan for carrying out the suggestions made in the above resolutions and to render assistance in securing the necessary legislation.

Resolved, That it is the sense of this meeting that a commission should be appointed by the governor, in accordance with the suggestion embodied in Dr. Webster's paper, to study the health departments of other states and of our own and to report on the possibility of improvement in the organization of the Illinois department of health.

It is to be regretted that, despite the wide advertisement of this conference, to which invitations were sent by the state university and the State Board of Health, only five of the 5,400 city, village and county health officers of the state were present, and of these three were from Champaign county and one from Chicago.

Chicago

Bequest for Hospital.—The Francis E. Willard Temperance Hospital is one of the two principal legatees of the estate of the late Dr. Thomas D. Fisher, Leroy, which is valued at $75,000.

Compulsory Vaccination.—At the meeting of the council of the Chicago Medical Society April 13, resolutions, introduced by Dr. William L. Baum in support of a bill making vaccination compulsory, were adopted.

Health Institute Proprietor Fined.—M. Janik, proprietor of the Krakow Institute on Milwaukee avenue, charged on complaint of the State Board of Health with practicing medicine without a license, is said to have been found guilty by a jury in the municipal court, April 22, and fined $100.

Personal.—Dr. Jacob Frank has been appointed attending surgeon of the Columbus Hospital.——Dr. William A. MacFarlane has been ill seven weeks with pleuropneumonia.——Dr. Frank L. Rose, who is about to remove to Lusk, Wyo., was given a farewell dinner April 22, by the Englewood Branch of the Chicago Medical Society.——Mr. Harlow N. Higinbotham has been elected president and Dr. William A. Evans, secretary of the board of directors of the new Chicago Municipal Sanatorium.

New Dispensary.—An addition to the dispensaries of Chicago is the Calumet Avenue Branch of the South Side Dispensary, erected adjacent to Mercy Hospital by the Northwestern University Medical School at a cost of $30,000. A large faculty room, two recitation rooms, thirteen small ex-

amining rooms, drug rooms, a photographic room, an *x*-ray room are on the first floor; a laboratory occupies the entire rear of the floor; on the second floor there is an assembly hall for clinical demonstrations, with a seating capacity of 300.

IOWA

Wills Library to Medical School.—By the will of the late Philo J. Farnsworth, Clinton, his extensive library of medical and scientific works is bequeathed to the Medical Department of the Iowa State University, Iowa City.

Unlicensed Practitioners Found Guilty.—James E. Myers, Lansing, indicted on the charge of practicing medicine without a certificate from the State Board of Health, on complaint of the Allamakee County Medical Society, is said to have been found guilty.——"Dr." Adkins, a graduate of a school of "vital science," charged with practicing medicine without a license, is said to have been found guilty at Montezuma, April 8, and fined $300.

Appropriations for the Tuberculosis Conflict.—At the session of the state legislature, just closed, there was appropriated for new buildings at the State Sanatorium for the Treatment of Tuberculosis, Oakdale, $55,000; there is available for maintenance for the next two years $96,000, and $10,000 was appropriated for lectures on tuberculosis and the education of the public. The new buildings will enlarge the sanatorium to a capacity of 120. Its present limit of 77 has been taxed since October last.

Personal.—Dr. Thomas U. McManus, Waterloo, has been appointed a member of the State Board of Health, vice Dr. Joseph H. Sams, Clarion, term expired.——Dr. Charles M. Harrington, Knoxville, is reported to be critically ill with appendicitis.——Dr. Aaron A. Noyes, Mason City, a member of the first class that graduated from an Iowa medical college, was the guest of honor at a banquet given by the faculty to the students and alumni of Drake University Medical School, Des Moines, April 5.

MARYLAND

Convicted for Violation of the Cocain Ordinance.—Dr. Ralph J. Schirman, Baltimore, is said to have been convicted, April 22, of violating the cocain ordinance by prescribing the drug for habitual users. Sentence was suspended under a motion in arrest of judgment.

Personal.—Dr. William Osler arrived in the United States from England, April 21.——Dr. Charles H. Medders, Baltimore, who sued the Western Maryland Railroad for $5,000 for services rendered in a collision four years ago, is said to have been given a verdict for $150.

Alumni Banquet.—The annual banquet of the General Alumni Association of the University of Maryland was held April 22. Among the medical speakers were Dr. Joshua W. Hering, Westminster, comptroller of the state, and Dr. John C. Hemmeter, Baltimore, of the faculty of physics.

Society Meeting.—Montgomery County Medical Society held its annual meeting in Rockville, April 20, and elected the following officers: President, Dr. Otis M. Linthicum, Rockville; vice-president, Dr. William L. Lewis, Kensington; secretary-treasurer, Dr. John L. Lewis, Bethesda, and censor, Dr. William T. Pratt, Potomac.

Increase in State Appropriations Asked.—The following applications from Baltimore institutions for increased state appropriations have been made to the Board of State Aid and Charities: Hebrew Hospital, from $7,000 to $12,000; St. Joseph German Hospital, from $7,500 to $15,000; Hospital of the Good Samaritan, from $1,200 to $5,000; and South Baltimore Eye, Ear and Throat Hospital, from $2,000 to $6,000.

MISSISSIPPI

Personal.—Dr. Harry H. Harrison, Jackson, was seriously injured in a runaway accident April 7.——Dr. Fred. L. Meyer, state lecturer for the State Board of Health on Hygiene and Sanitation, delivered a popular lecture in Meridian, April 22, on "Mosquitoes and Flies."

College to Open.—The chancellor of the University of Mississippi announces that the University Medical College will open at the Charity Hospital, Vicksburg, September 23. The contract for the construction of the building in which the medical department is to be located has been awarded, and it is expected it will cost between $9,000 and $12,000.

State Society Meeting.—At the annual meeting of the Mississippi State Medical Association, held in Jackson April 12 to 14, under the presidency of Dr. James W. Gray, Clarksdale, the following officers were elected: President, Dr. Dudley W. Jones, Fernwood; vice-presidents, Drs. Joseph C. Armstrong, Water Valley, and Thomas Purser, McComb; treasurer, Dr. Hugh L. Sutherland, Rosedale (re-elected); councilors, First District, Dr. Thomas M. Dye, Longwood, and Second District, Dr. James B. Bullitt, University; delegate to the American Medical Association, Dr. James W. Gray, Clarksdale, and alternate, Dr. H. A. Minor, Macon. Before its adjournment, the association renewed its recommendation for the establishment of a state charity hospital in Jackson, and a memorial on this subject will be presented before the next legislature. It was decided to meet in Oxford in 1910.

MISSOURI

Appeal Dismissed.—The appeal of Dr. Erasmus A. Duncan, Salem, from the decision of the State Board of Health, which revoked his license to practice medicine on account of alleged issuance of prescriptions for whisky in violation of the law, is said to have been dismissed in the Circuit Court April 3.

Personal.—Dr. W. Francis Mitchell, Lancaster, has been an invalid for eight months with a serious disease of the neck.——Dr. George Williams, Odessa, has been appointed superintendent of the State Hospital for the Insane No. 4, Fulton, vice Dr. Porter E. Williams, term expired.

City Hospital for Sedalia.—A committee from the Pettis County Medical Society has asked Dr. Wood, the owner of Maywood Hospital, Sedalia, whether he would be willing to sell the institution, that it might be converted into a city hospital. He put a price of $40,000 on the building and equipment, and the question is to be voted on by the society at its next meeting.

Bill to Reduce Dissecting Material.—House Bill 456, to eliminate hospitals and poorhouses as sources of supply for anatomic material, thereby reducing the latter four-fifths, has passed the Senate and is in the hands of the house committee on public health and legislation. Dr. Robert J. Terry, St. Louis, has introduced a resolution setting forth that this bill in effect defeats the purpose of the present law which authorizes the use of the bodies of unclaimed dead for the pursuit of medical studies, and that the passage of the bill would result in retrogression from the attitude maintained by other civilized states toward medical science, and urging every intelligent legislator to oppose so reactionary a measure.

NEW HAMPSHIRE

Personal.—Dr. Mary Dennon, Manchester, has been appointed assistant physician at the Norristown (Pa.) State Hospital for the Insane.——Dr. John H. Bates, East Rochester, has been appointed county physician for Rochester, Strafford and Barrington.

State Medical Society Meeting.—The one hundred and eighteenth annual meeting of the New Hampshire State Medical Society will be held in Concord May 13 and 14, under the presidency of Dr. John M. Gile, Hanover. The house of delegates will meet May 12 at 8:30 p. m. Among the principal papers at this meeting are those on "Surgery of the Stomach," by Dr. John B. Deaver, Philadelphia; "The Legal Liability of Physicians to Patients," by M. D. Cobleigh, Esq.; "The Development of Milk Laboratories in Regard to What Food Stuff They Can Provide, and Their Relations to the Principles of Infant Feeding," by Dr. Thomas M. Rotch, Boston; "The Fashionable Shoe as Worn on the Human Foot as Seen Through an X-Ray," by Dr. Arthur F. Wheat, Manchester, and "Responsibility of the General Practitioner and the Specialist in the Prevention of Deafness," by Dr. Francis P. Emerson, Boston. The anniversary banquet will be held at the Eagle Hotel in the evening of May 14, presided over by Dr. Howard N. Kingsford, Hanover.——In connection with this meeting the annual meeting of the New Hampshire Society of Military Surgeons will be held.

NEW JERSEY

Pay Physicians for Reporting Communicable Diseases.—The board of health of East Orange, on April 15, made appropriation to cover the payment of ten cents to physicians for each case of contagious disease reported in the city, the order to be retroactive for as far as January 1.

Personal.—Dr. S. Leslie West, formerly of Philadelphia, has gone to Atlantic City to manage the Westmont Sanitarium, formerly the Hotel Senate, which has been especially equipped for hydrotherapy and electrotherapeutics.——Dr. Edward

Guion has been elected health officer of Atlantic City, vice Dr. Milton L. Somers, deceased.——Dr. Charles J. Larkey has been appointed deputy health officer of Bayonne.

Society Meetings.—At the annual meeting of Union County Medical Society, held in Elizabeth April 14, the following officers were elected: President, Dr. Stephen T. Quinn; vice-president, Dr. P. DuBois Bunting; secretary, Dr. John H. P. Conover; treasurer, Dr. Alvin R. Eaton, Jr., all of Elizabeth; reporter, Dr. Morton H. Pierson, Roselle, and delegate to the state society, Dr. Ellis W. Hedges, Plainfield.——Bergen County Medical Society, at its annual meeting April 13, elected Dr. Philip E. Brundage, Grantwood, president; Dr. James W. Proctor, Englewood, vice-president; Dr. Frederick S. Hallett, Hackensack, secretary, and Dr. Frank Freeland, Maywood, treasurer.——At the annual meeting of Cumberland County Medical Society, held in Bridgeton April 13, Dr. Charles W. Wilson, Vineland, was elected president; Dr. Alfred Cornwell, Bridgeton, vice-president; Dr. Amos J. Mander, Millville, secretary, and Dr. Joseph Tomlinson, Bridgeton, treasurer.——Somerset County Medical Society held its annual session in Somerville April 8, and elected Dr. Peter J. Zeglio, North Plainfield, president; Dr. Claudius R. P. Fisher, Bound Brook, vice-president; Dr. Francis E. DuBois, Plainfield, secretary; Dr. Thomas H. Flynn, Somerville, treasurer; Dr. John P. Hecht, Somerville, reporter; Dr. Henry V. Davis, North Branch, censor, and Dr. Elfie R. Graff, Somerville, delegate to the state society.

NEW YORK

Fire at Sanatorium.—Dr. W. Hays Mitchell, superintendent of the Sheldrake Springs, writes that on April 20, the power plant of the institution was destroyed by fire with a loss of $10,000. No damage was done to the main building, nor did the fire cause serious delay in caring for patients.

Gold Medal Awarded.—A special award of a gold medal and certificate in recognition of effective work done in organization of the state campaign against tuberculosis has been awarded to the State Charities Aid Association by the committee which had in charge the granting of awards by the International Congress on Tuberculosis.

Bill to Abolish Quarantine Commissioners.—This bill provides for the abolishment of the quarantine commission and the turning over of the work to Dr. Alvah H. Doty, the health officer of the Port of New York. All of the quarantine commissioners except one are out of office, either through death or otherwise. The governor has recommended this step for the past two years.

Ambulance Board Bill Held Up.—The Hoey bill, which proposes to place the ambulance service of New York under the control of a board consisting of the police and charities commissioners and the head of Bellevue and the Allied Hospitals, which was passed by the assembly and handed down to the senate, has been held up by the senate committee. The bill will be amended so that instead of the head of Bellevue and the Allied Hospitals, two private citizens shall be appointed by the mayor. The private hospitals contended that it was not just to have only one hospital represented in the membership of the board.

Resolutions Regarding Ophthalmia of the New Born.—At a meeting of the Medical Society of the County of New York, March 22, a preamble and resolutions were unanimously adopted, setting forth that ophthalmia neonatorum is the cause of blindness in 33 per cent. of the cases in all institutions; that the disease is in great part, if not entirely, preventable; that the control of preventable diseases must originate within the profession of medicine; and can succeed only by the concerted action of the entire profession and the arousing of public sentiment, endorsing and commending to the favorable consideration of the President of the United States the calling of an International Congress for the Study of Ways and Means for the Prevention of Ophthalmia Neonatorum and Blindness, and requesting that he extend an invitation to the medical profession and those interested in public health to participate in a world's congress, to be held in Washington in 1910.

Bills Passed.—The State Department of Health Sewage Disposal Bill was passed on April 20. This bill gives to the State Commissioner of Health the power of determining on investigation, whether the sewage from any city, village, town, building, steamboat or other vessel or property, which is being discharged into the waters of the state, is polluting such waters in a manner injurious to health or comfort, and, if so, to issue an order to discontinue the discharge of such sewage and adopt a method which will avoid further pollution.——The senate passed the bill making an appropriation for the purchase of the Greenvale site for the new State Hospital for the Insane. ——Assemblyman Voss' bill was also passed, which prohibits the employment of any child under the age of 16 in factories where circular, band saws, wood-shapers, wood joiners or other appliances dangerous to life or limb, like saws, belts or wheels, or poisonous acids are used; where alcoholic liquors are manufactured, bottled or packed, or where the employment of such necessitates the persons standing during his or her work. No person under the age of 16 shall be permitted to run an elevator and no male person under the age of 18 or female under 21 shall be permitted to clean or to have the supervision of machinery.

New York City

Fifty Dollars for the First Baby.—The first child born in the Jewish Maternity Hospital, East Brooklyn, was given $50 by the hospital authorities. The birth occurred April 11.

For Selling Cocain.—A Grand street druggist has been convicted of selling cocain and sentenced to imprisonment for 11 months and 29 days in the penitentiary, and to pay a fine of $500.

Personal.—Dr. Samuel W. Hamilton, of the Manhattan State Hospital, has been appointed assistant physician at the Utica State Hospital.——Dr. Max J. Russianoff, Brooklyn, has been appointed assistant physician at the Rome State Custodial Asylum.

New Home for the Blind.—The New York Institution for the Blind has purchased a site of about 51 acres for its new home in Bronxville village. It will be two years before the institution will leave its home at Ninth avenue and Thirty-fourth street to occupy the new building.

Fresh Air Excursions.—The Fresh Air Excursions to Sea Breeze Hospital will begin May 19. Dr. Edward O. Park of the New York Foundling Hospital has been appointed attending physician to the Fresh Air Department of the New York Association for Improving the Condition of the Poor, and will examine all children who take the trips.

Aid for Sea View Hospital.—The Board of Estimate and Apportionment has authorized the issue of $1,350,000 incorporate stock to provide for the erection and completion of the Sea View Hospital on Staten Island. It is stated that with this amount 1,000 beds could be provided for patients whom it is purposed to care for on Staten Island.

Neurologic Institute Planned.—The Neurological Institute of New York, backed by well-known professional men, has been incorporated, and plans are being made to alter two dwelling houses for headquarters. Dr. Joseph Collins and Dr. Joseph Fraenkel are the originators of the plan in this country. About $100,000 has been promised for the purchase of a site for this hospital and clinic, which will be the first of its kind in America.

Communicable Diseases on Steamers.—The Hamburg-American steamer, *Cleveland*, which arrived April 7, was detained in quarantine on account of a case of smallpox in the steerage.——The Russian steamer, *Russia*, which arrived April 9, from Libau, was detained in quarantine on account of a case of smallpox.——Information was received at the Naval Hospital, Brooklyn, April 8, that scarlet fever had broken out on board the U. S. battleship *Missouri*.

To Save the Babies.—The Bureau of Child Hygiene of the Department of Health, started its annual life-saving campaign April 15, when 141 nurses and 150 physicians began their visits and instructions to mothers. Dr. S. Josephine Baker is head of the bureau, and Dr. Walter Bensel, executive head of the system. Cards giving a few simple principles in regard to the care of infants are being distributed, and these urge that in case the baby is ill a physician be called, or the Department of Health be notified at once.

NORTH CAROLINA

Decision in Liquor Cases.—In the Federal Court of Greensboro, United States District Judge Boyd has ruled that a witness who testified that he had purchased spirituous liquors from the defendant was indictable as an aider and abetter in the violation of the law; that the violation of the law against retailing without license was a misdemeanor, and, since aiders and abetters were guilty as principals, that purchasers of liquors were equally guilty with the seller. This decision has been noted with much interest by physicians of the state, as

the stringent prohibition law which took effect last January has naturally stopped the legal sales of liquors in the state excepting for medical purposes on prescriptions, and as, in a great majority of the counties, public sentiment has prevented druggists from taking out licenses to handle liquors even for medicinal purposes.

OHIO

Medical Society Organized.—Physicians of Morrow county met in Mount Gilead and organized a medical society, and elected Dr. Walter C. Bennett, president, and Dr. Roy L. Pierce, secretary, both of Mount Gilead.

Alumni Associations Merge.—The Alumni Association of the Medical College of Ohio and Miami Medical College, Cincinnati, were merged April 1. Dr. William H. Campbell, Cincinnati, was elected president, and Dr. Sidney O. Lange, Avondale, secretary.

Agree Not to Write Prescriptions for Liquor.—At a meeting of Union County Medical Society, April 13, a resolution was unanimously adopted agreeing not to write prescriptions for whisky except at the bedside of patients, and then only when absolutely indicated.

Personal.—Dr. George W. Crile, Cleveland, read a paper on "Surgical Anemia and Resuscitation" before the Detroit Academy of Medicine, April 13.——Dr. T. Addison McCann, Dayton, has been appointed a member of the State Board of Medical Examination and Registration.——Dr. Simon P. Wise, Millersburg, has been appointed a member of the board of trustees of the Ohio Tuberculosis Sanatorium, Mount Vernon.

For Tuberculosis Sufferers.—Butler county is to have a hospital for the treatment of tuberculosis. The old stone building on the grounds of the county infirmary has been selected for this purpose.——The Dayton Tuberculosis Society is making strenuous effort to raise funds by subscription to meet the expenses of the new Brookside Sanatorium for a year. The institution opened for the reception of patients April 25, and formal dedication was to be May 1.——The Antituberculosis League of Cincinnati has been incorporated by Drs. Samuel E. Allen and John M. Withrow and Messrs. C. M. Hubbard, Louis L. Levi and E. L. Hitchins.

PENNSYLVANIA

Leg Not Refractured.—Dr. John J. Bilheimer, Priceburg, writes that the report in THE JOURNAL, April 17, regarding his condition, was incorrect. Dr. Bilheimer reports that his leg is in good condition, strong and straight, and of equal length with its fellow.

Aid for Hospitals.—Mrs. J. C. Blair has given $50,000 for the erection and partial equipment of the J. C. Blair Memorial Hospital in Huntingdon, and an additional $50,000 for its portial endowment.——The will of the late Dr. Martin H. Boye bequeaths $12,000 each to the Allentown Hospital and St. Luke's Hospital, South Bethlehem.——The will of the late William P. Henszey, Philadelphia, bequeaths $10,000 each to the Hospital of the Good Shepard; Episcopal Hospital; Orthopedic Hospital; Presbyterian Hospital; Woman's Hospital; Medico-Chirurgical Hospital; Cathcart Home for Incurables; Wills Eye Hospital and White Haven Sanitarium.——The will of the late Emilia A. Krause bequeaths the residual of an estate valued at almost $40,000, to Christ Church Hospital, Philadelphia.

Philadelphia

Hospital Dedicated.—The Frederick Douglas Hospital and Training School for Nurses, an institution founded by the colored physicians of this city and erected at a cost of $100,000, was dedicated with appropriate ceremonies, April 22. The institution was organized by Dr. Nathan F. Mossell, who has been elected its medical director.

Memorial Tablet Erected.—A memorial tablet has been placed in the main hallway of the German Hospital, Philadelphia, to commemorate the bestowment of an endowment fund of $5,000 by the parents of the late Dr. Sorden McClure, first lieutenant and assistant surgeon N. G. Pa., assigned to duty with the First Infantry, to furnish a free bed in the hospital for the benefit of soldiers of his regiment.

Personal.—Drs. F. Hurst Maier and P. Brooks Bland have been elected gynecologists to St. Joseph's Hospital.——Dr. J. Morton Boice has been elected gynecologist to the out-patient department of St. Joseph's Hospital.——Dr. J. Norman Henry sailed for Europe April 23.——Dr. Samuel G. Dixon has been elected vice-president of the Pennsylvania Society for the Prevention of Tuberculosis.——Dr. William W. Keen has been elected president of the Contemporary Club.

Testimonial Dinner to Henry Phipps.—With the unanimous approval of many of the city's most prominent citizens, and with Mayor Reyburn representing the public at large, it was decided, on April 22, to give a testimonial dinner on May 12 in this city, to Mr. Henry Phipps, the founder of the Phipps Institute for the Study and Treatment of Tuberculosis. The dinner will also be made the occasion for presentation to Mr. Phipps of the Altohoff Gold Medal, which he was awarded by the International Congress on Tuberculosis. The following committee is in charge of the arrangements: Drs. Lawrence F. Flick, Joseph F. Walsh, Joseph S. Neff, Charles J. Hatfield, Martin G. Brumbaugh and Mr. E. T. Stotsberry.

TENNESSEE

Personal.—Dr. Thomas J. Happel, Trenton, who has been seriously ill for many weeks, is reported as slightly improving.——Dr. Charles A. Abernethy, Pulaski, has been chosen by the State Board of Medical Examiners to fill the vacancy in the secretaryship caused by the illness of Dr. Happel.

Commencements.—The annual commencement exercises of the Chattanooga Medical College were held April 26, when a class of 24 was graduated. Hon. George W. Ochs, Philadelphia, delivered the principal address.——The commencement exercises of Meharry Medical College, the Medical Department of Walden University, Nashville, were held April 8, when a class of 41 was graduated. The salutatory address was given by Dr. J. G. Shaw, Mississippi; the medical valedictory by Dr. T. S. Powell of Tennessee; the doctorate address was delivered by Booker T. Washington, and the charge to the graduating class by Dr. J. W. E. Bowen, Atlanta, Ga., on the "Sacredness of the Profession."

VIRGINIA

Smallpox Warning.—A special bulletin on smallpox has been issued by the State Board of Health, which gives the history of the disease in the state and urges general vaccination in the effort to expel the disease from Virginia.

Personal.—Major James W. Henson, Richmond, surgeon Virginia Volunteer Militia, has resigned.——Dr. Samuel A. Hinton, Petersburg, has been re-elected councilor from the Fourth District to the Medical Society of Virginia.——Dr. May T. Jones, West Point, has been appointed assistant physician at the Eastern State Hospital, Williamsburg.——Dr. Sylvester D. Craig, Alexandria, has succeeded Dr. Fadely, resigned, as assistant surgeon in the National Soldiers' Home Hospital, Newport.

Preventive Medicine.—The University of Virginia has announced a summer course for the training of those interested in subjects connected with the preservation and improvement of public health, to begin June 14 and continue until July 24, especially for health officers, medical inspectors and similar public officers. It will also inaugurate in September a four years' course for the training of sanitary engineers. A course of lectures will also be given on selected topics of public health, some of which are intended especially for public health students, while others are open to all students in the university. The six weeks' course includes chemistry, bacteriology, medicine, hygiene and epidemiology.

GENERAL NEWS AND COMMENT

Esperanto Authorized for International Medical Congress.—The last Pan-American Scientific Congress approved Esperanto as a neutral international language and recommended it for an important place in the programs of congresses among the various American governments.——Esperanto has been officially accepted by the forthcoming International Medical Congress at Budapest, as a language in which communications may be made and discussed.

Promotions and Appointments.—At the annual meeting of Directors of the Rockefeller Institute for Medical Research, New York City, April 10, the following promotions and appointments were made: Associate members—Drs. John Auer, physiology; Hideyo Noguchi, pathology; Alexis Carrel, surgery; associate, George W. Heimrod, chemistry. Assistants—Martha Wolstein and Richard V. Lamar, pathology; A. O. Shaklee, physiology, and Gustave M. Meyer, chemistry. Fellows—M. T. Burrows, pathology, and Paul F. Clark, bacteriology.

Railway Surgeons Meet.—At the fourteenth annual meeting of the Association of Surgeons of the Southern Railway, held in Jacksonville, Fla., April 6 and 7, the following officers

were elected: President, Dr. Charles H. Starkel, Belleville, Ill.; vice-presidents, Drs. Jay H. Durkee, Jacksonville, Fla., and Hugh W. Blair, Sheffield, Ala.; secretary-treasurer, Dr. Jacob U. Ray, Woodstock, Ala., and member of the executive committee, Dr. George H. Stubbs, Birmingham, Ala. Dr. William A. Applegate, chief surgeon of the railway, Washington, D. C., was presented with a watch by the association.

Civil Service Examination.—The United States Civil Service Commission announces an examination, June 16, at a number of cities throughout the United States, to secure male medical internes in the Government Hospital for the Insane, Washington, D. C., at $600 per annum, each with maintenance, and for similar vacancies as they may occur. Applicants must be graduates of reputable medical colleges not more than two years prior to the examination, and application should be made either to the United States Civil Service Commission, Washington, D. C., or to the secretary of the local board of examiners at any place at which the examination is to be held.

Philadelphia Physicians' Business Journal.—This is a new periodical, of which the first issue has come to hand. It aims to care for the economic interests of the physician, individually and collectively. The importance of the organization of business bureaus is insisted on in order that physicians may obtain by solidarity that consideration for their rights which the individualism of the past has lost to them. The journal, which is under the editorship of Dr. P. B. Thatcher, with Drs. A. M. Eaton, A. B. Hirsh, J. A. Broadfield, H. B. Ingle and N. M. Brinkerhoff as associate editors, consists at present of eight pages, but will be gradually increased. This first issue contains an Appeal for the Formation of Additional Physicians' Business Associations by Dr. A. M. Eaton, and articles on "The Present Status of the Profession," by Dr. P. B. Thatcher, and "Improvement in Professional Troubles," by Dr. A. B. Hirsh, besides notes on organization matters.

The Carroll Fund.—The following subscriptions have been received since the last report:

Previously reported	3,073.95
Adams County Medical Society, Quincy, Ill.	$ 15.35
Dr. C. Lincoln Furbush, Philadelphia	5.00
Mississippi State Medical Society, Vicksburg	150.00
Members of Mississippi State Medical Society	135.00
Dr. H. V. Ogden, Milwaukee, Wis.	5.00
Dr. C. L. Hagen Burger, Boston	3.00
A physician of La Aurora, Puebla, Mexico	1.00
The Rapides Parish Med. Society, Alexandria, La.	10.00
Dr. J. T. Joseph Bird, New York City	1.00
Dr. G. Victor Janvier, Royersford, Pa.	1.00
Dr. O. C. Strickler, New Ulm, Minn.	5.00
Dr. Frank S. Mathews, New York City	5.00
Mr. T. G. Dabney, chief engineer Yazoo-Miss. Delta Levee District, Clarksdale, Miss	5.00
Dr. J. M. Anders, Philadelphia	5.00
Dr. Joseph M. Croman, Mt. Clemens, Mich.	5.00
Dr. E. B. Quillen, Wilmington, N. C.	1.00
Dr. Albert Volkenberg, New York City	5.00
Dr. P. J. H. Farrell, Chicago	10.00
Dr. E. C. Ellett, Memphis, Tenn.	5.00
	$ 372.35
Total amount subscribed	$3,446.30

FOREIGN

Medical Members of the New Italian Parliament.—Twenty-five of the former medical members were re-elected and nine new physicians were elected, but ten others failed of re-election, and ten other physicians who were candidates for legislative positions were beaten at the polls. The latter list includes Bossi of dilator fame.

Prize for Work on Dementia Præcox.—The Royal Academy of Medicine of Turin offers a prize of $120 (600 lire) for the best work on dementia præcox, written in French, Italian or Latin, Ms. or published since 1905, and entered in competition for the Bonacossa prize before Dec. 31, 1909. Address the secretary, F. Abba, via Po, 18, Turin, Italy.

International Cancer Research Conference.—During the German Surgical Congress at Berlin last week, the council of the International Cancer Research Association held a meeting. The main subjects discussed were the best means for compiling international cancer and operative statistics on a uniform basis, the organization of the next international anticancer conference and allied questions.

More Medical Victims of Exanthematous Typhus.—The last foreign mail brings word of the death from epidemic typhus of an interne at Madrid, the fourth victim among the hospital internes during the present epidemic. The two last issues of the *St. Petersburg. med. Wochenschrift* also give obituary notices of five Russian physicians who succumbed during the two weeks to typhus professionally acquired, all residing in different provinces.

Northland Congress for Internal Medicine.—The sixth *Nordiska Kongressen för invärtes Medicin* is to meet this year at Skagen in Denmark in the last half of June, with K. Haussen of Bergen in the chair. The diagnosis of incipient pulmonary tuberculosis and functional tests of various organs are to be the main subjects discussed. The first is to be introduced by Tillman and Saugman, the second by Schaumann of Helsingfors, O. Scheel of Christiania, Madsen of Bergen, and V. Scheel of Copenhagen. The address of the secretary of the congress is Prosektor Scheel, Kommunehospitalet, Copenhagen, Denmark.

Northland Surgical Congress.—The eighth congress of the *Nordisk kirurgisk Förening* is to be held this year at Helsingfors, August 19 to 21. J. Berg and G. Forssell deliver the addresses on the first topic, "Modern Methods of Treating Cancer." E. Rode and V. Albeck speak on the second topic, "Indications for Interruption of Pregnancy in Serious Morbid Conditions, Especially in Tuberculosis." The third subject announced for discussion, "Treatment of Coxitis," will be introduced by Sinding-Larsen and H. von Bonsdorff. Prof. A. Krogius of Helsingfors is to preside at the congress and J. Borelius of Lund is the general secretary.

Semicentennial of St. Petersburg Medical Society and Russian Medical Literature.—The *Verein St. Petersburger Aerzte* celebrated March 31 the fiftieth anniversary of its foundation. The *St. Petersburg. med. Wochenschrift* has been its official organ for many years, as also of all other German-speaking medical associations in Russia. This journal is always published in German, and a very valuable feature is a monthly supplement devoted to current Russian medical literature. It lists in the course of the year the contents of twenty-two of the leading Russian medical journals, with brief summaries of the important articles, all in German. The more important articles in the Russian medical journals are almost invariably published simultaneously also in some German or French journal.

German Society for Repression of Venereal Diseases.—The annual meeting of this society was held at Berlin in February, and the secretary stated in his report that the warning circular for girls and women and others for parents and for men had been recently rewritten, and that arrangements had been made to have prophylactic lectures delivered this year in the universities and postgraduate schools. Graser of the German Marine Hospital at Naples obtained the prize offered for the best prophylactic pamphlet for distribution among soldiers and sailors. It is for sale at bookstores for 5 cents. It was announced with approving comment that the Bavarian government has forbidden the holding of lectures on sexual enlightenment by medical men or anyone unless endorsed by some medical or hygienic association. The meeting was mainly devoted to discussion of the sanitary control of prostitutes.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, April 16, 1909.

Dentists Object to be Prohibited from Administering Anesthetics

As stated in previous letters, attention has been directed to the number of deaths which occur under anesthetics, and further legislation for the protection of the public is demanded. A bill has been introduced in the House of Commons prohibiting the administration of any general anesthetic by other than a legally qualified medical practitioner and also rendering theoretical and practical instruction in administration necessary for qualification. The executive of the British Dental Association has protested against dentists being deprived of the right to administer anesthetics.

Sleeping Sickness; Recent Discoveries

Important discoveries with regard to sleeping sickness have been made by Dr. Kinghorn and Mr. Montgomery in Rhodesia and Nyassaland of the expedition of the Liverpool School of Tropical Medicine. They have shown that the disease may be due to any one of a large number of trypanosomes and that these may be carried by flies other than tsetse. In northern Rhodesia preventive measures have been successful. The country has been divided into zones and all the known cases segregated. The disease has in consequence considerably diminished.

Lectures on Medical Ethics

A general practitioner has made a novel suggestion in *St. Bartholomew's Hospital Journal* that one or two lectures should be given in the medical school at the end of each session on medical ethics and etiquette to those students who have finished their course and are about to qualify. He proposes that these lectures should be given by some well-known general practitioner of high standing and long experience and not by a consultant on the hospital staff whose career has not enabled him to gain experience of the petty annoyances and of the temptations to diverge from the straight path, which are so often cropping up in the life of the general practitioner. A recommendation has been sent up from the council of the student's union of the hospital asking the medical school committee to arrange for such lectures.

The Royal College of Surgeons

The Jacksonian prize has been awarded to Mr. J. P. Lockhart Mummery, F.R.C.S., for his essay on "The Pathology and Treatment of Those Conditions and Diseases of the Colon Which Are Relievable by Operative Measures." The prize subject for the year 1910 will be "Tuberculous Disease of the Urinary Bladder and Male Genital Organs." Sir Jonathan Hutchinson has been appointed the delegate of the college to the University of Geneva on the occasion of the three hundred and fiftieth anniversary of its foundation in July next. Dr. R. T. Leiper of the London School of Tropical Medicine, has been asked to undertake the revision and renovation of the collection of entozoa in the college museum.

The Children's Act

The present government is distinguished above all previous ones by its solicitude for children, the outcome of the humanitarian movement of the times. The Children's Act which has just come into force, and has aptly been called the "Children's Charter," is probably the most complete measure for the protection of infant and child life which has ever been devised. Every provision possible seems to have been included. A great advance has been made on the Infant Life Protection Act of 1897, which rendered foster parents who received more than one infant under the age of 5 years subject to inspection. The present act renders subject to inspection every infant who is placed out to nurse for more than 48 hours for fee or reward. Notification of the fact must be made to the local health authorities, and in case of change of residence, removal or death of the infant this must also be reported within 48 hours. The coroner must be informed within 24 hours of the death of an infant under such circumstances. It is common practice of the poor to insure the lives of their children for small sums, in order to defray the expenses in case of death. In connection with this practice, some scandals have arisen from time to time. When a child died under circumstances of poverty and neglect, it has often been alleged that the prospect of being paid the insurance money prevented it from receiving due care. The present act forbids the insurance of all such children in charge of foster parents. The second part of the act deals with the prevention of cruelty to children and young persons. Failure to provide adequate food, clothing, medical aid or lodging is to be deemed neglect. Provisions are made to prevent the frequent tragedies of overlying, burning and scalding of children. It is also an offense to give a child under the age of 5 years any intoxicating liquors, except on the order of a physician, or in case of sickness or apprehended sickness or other urgent cause.

Death of Another Investigator of Sleeping Sickness

Capt. F. H. Hardy, of the Army Medical Corps, a former student of Guy's Hospital, has contracted a fatal attack of sleeping sickness while investigating the disease and endeavoring to stop its spread among the natives of Nyassaland. When he was found to be infected it was decided that he should come home for treatment, but he died on the way, at Aden. His fate recalls that of Lieut. F. Tulloch, another officer of the Army Medical Corps, who contracted the disease a few years ago in central Africa and came home to die.

A Physician Who Risked His Life for a Patient

The heroic act of sucking a tracheotomy tube has once again been performed. A boy was brought to the East Ham Hospital almost asphyxiated by laryngeal obstruction from diphtheria. Dr. Sowden, health officer of the district, at once performed tracheotomy and as the breathing was not relieved he sucked the membrane out of the tube and saved the patient's life. A week has now passed and the physician has shown no sign of the disease.

The Editorship of The Lancet

Dr. Squire Sprigge, who has been chief of the editorial staff of the *Lancet* for fifteen years, has received the well-merited promotion to the post of editor. He is the author of the "Life and Times of Thomas Wakley," an interesting and ably written biography of the founder of the *Lancet*, and a valuable contribution to the history of the early part of the nineteenth century, for the first Wakley was a public man, a member of Parliament, a reformer and a stout political fighter. The long connection of the Wakley family with the editorship of the journal is severed, but it is in the best and most appropriate hands and its position and traditions are certain to be maintained unimpaired.

PARIS LETTER

(From Our Regular Correspondent)

PARIS, April 15, 1909.

The Abuse of Free Hospital Attendance

The decree concerning the organization of the Public Assistance in Paris formally recognizes the principle that the hospital must be reserved for the poor: "The sick entered in the list of indigents or recognized as being necessitous alone have a right to gratuitous medical aid, save in cases of emergency." This principle, however, is violated every day. If one examines the statistics of mortality for Paris and in the Department of the Seine, one sees that in 1905, out of 53,220 deaths, 25,221 persons died in the hospitals, and, consequently had been cared for at the public expense. This death list represented, then, in 1905, 48 per cent. of the general mortality, while in 1880 it did not exceed 29 per cent. This increase in hospital attendance is due, not to an increase in pauperism, but to the fact that the betterment of the hospitals has had the effect of dissipating the repugnance formerly felt for the hospital by people in easy circumstances.

The medical profession complains with reason of the scandalous abuse committed daily by people of means taking the place of the poor. Dr. Lermoyez, mentioned recently as coming to his hospital clinic, the proprietors of a large hotel and a hairdressing establishment, a provincial lawyer, a manufacturer disguised as a workman, a dealer in art bronzes disguised as a delivery man, a provincial lady of independent means who had borrowed the dress of a maid, etc. Dr. Thierry has seen in his hospital service a merchant who brought his daughter daily in his carriage, a jockey who earned, according to his own statement, 25,000 francs a year, and a cashier of a large commercial house, earning 20,000 francs a year. For some time since attention has been more and more directed to this state of affairs, prejudicial alike to the interests of the real poor and to those of the physician, who thus sees diminishing his paying *clientèle*. With a view to remedying it, M. Mesureur, director of the Public Assistance, has decided to impose a fee of 75 centimes for each attendance, a measure unfavorably regarded by the medical body from every point of view; for if such attendance is rendered to the indigent, it ought to be entirely gratuitous; but if to one whose circumstances permit him to pay therefor, then a fee of 75 centimes is ridiculous. M. Mesureur has, moreover, had posted in the hospitals a notice pointing out that medical attention is exclusively reserved for indigent or necessitous persons domiciled in Paris or in the Department of the Seine. The administration of Public Assistance reserves the right of investigating the subject of domicile, to verify the truth of the statements made and, if necessary, to recover fees for consultation from every person whose condition is neither indigent nor necessitous. Finally, in consequence of the steps taken by the president of the general council of medical societies of the *arrondissement*, and by the general secretary of the medical syndicate of Paris, Mr. Mesureur has decided to establish a commission to investigate the means of preventing admission to the free hospitals of the *Assistance Publique* of patients sufficiently well off to pay their own medical fees. This commission will consist, not only of members of the administration of Public Assistance, but also of representatives of the different professional bodies, such as the Syndicate of Physicians of the Department of the Seine, the Medical Syndicate of Paris, etc.

The Antitobacco Society

The subject set by the Society Against the Abuse of Tobacco this year for competition is as follows: "Report of Observations Showing That Smokers Are More Subject Than

Others to Cancer." There will also be made a large number of awards to physicians for works not directly answering the question, but dealing with the evil consequences of the abuse of tobacco. Essays should be addressed to Dr. Georges Petit, 12 Rue Jacob, Paris.

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, April 15, 1909.

The Summer Term at the University of Vienna

The summer term has just begun at the University of Vienna. The official catalogue enumerates no less than 406 different classes, courses and lectures (under 35 ordinary, 65 extraordinary professors and 167 privat-docents and assistants) for the summer semester, which lasts from the middle of April to the middle of July. The number of lectures has decreased a little in comparison with the summer term of 1908, but the number of classes is larger (406 against 380). They will include not only all the regular lectures on the cardinal branches (surgery, medicine, ophthalmology, pediatrics, gynecology, dermatology, morbid anatomy) by the ordinary professors, but also a vast number of special lectures and courses, many of which (especially postgraduate classes, or classes in English, French or Russian) are to be adapted to the needs of students applying to the lecturer. Vienna, it must be remembered, is one of the centers of European medical study. No less than 385 foreign graduates matriculated at the university during the last winter term, about 60 per cent. of them being English and American physicians. There are classes in English on special subjects (otology, rhino-laryngology, ophthalmology, morbid anatomy, bacteriology, atypical surgery). The influential Anglo-American Medical Association of Vienna has taken the matter in hand and oversees the classes with the best possible results to both students and lecturers.

An important point is that anyone wishing to get as much as possible out of his stay in this city should come in the summer. Many professors are out of town in July and August, and the enormous material in the hospitals may be used much better by the man who wishes to do it than if the professor were obliged to deliver his daily lecture. In fact, during the summer vacations much independent work may be done by those competent to do it. Those who have not a great deal of knowledge or experience will do well to come here early in winter; having attained enough proficiency, they will readily be allowed in the clinics to work as much as they like during the summer.

The average fee for the classes, roughly speaking, comes to about $10 for four weeks; some cost less, some a trifle more. Generally the number of students is limited to ten or fifteen, so that each may obtain the best results.

Protection of Infants in Vienna

The idea of combating the appalling mortality among infants by protecting them from bad food and ignorance has at last gained a firm hold in this city, thanks to the intrepid perseverance of a few men with open minds and pockets. The report of the *Säuglingsschutz* (Society for the Protection of Infants) shows success, and proves that the method adopted is a correct one; namely, encouragement of natural feeding with the mother's milk, instruction of the mother in regard to the nature and duration of wet-nursing, and regular inspection and control of the children. It has been possible to bring down the mortality among the controlled infants to 100 per thousand, against 190 per thousand in Vienna generally, and at least 210 per thousand among the inhabitants of the poor districts, whence the controlled children are brought to the society.

On the other hand, the absolute figures of the good work accomplished are insignificant in comparison with the achievements abroad. First, large funds are required; next, strict instruction of the coming generation of physicians in regard to the cardinal principles of the care of infants is necessary. Then, too, the midwives, many of whom do not favor breast-feeding, need enlightenment.

A very useful step in this direction would be the institution of mothers' schools, for girls and mothers. Such a school has been founded in Vienna with the assiduous aid of Prof. von Escherich; and it will no doubt help to re-educate the female population in its maternal duties. Such schools are also planned in connection with factories and workshops.

Another important movement is also under way in medical circles. The emperor's jubilee in 1908 has caused large sums to be devoted, acording to the old emperor's wish, to the welfare of the child. There is a movement to use these large funds for hospitals and orphans' institutes. Von Escherich and many other prominent physicians, however, recommend the employment of these sums for the *Säuglingsschutz* for the prevention of mortality among infants and for the support of poor mothers after childbirth, provided they feed their babies at the breast. As the fund amounts to several hundreds of thousands, much could be done with it in this direction, and there is every reason for hope that this end will be attained.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, April 7, 1909.

Tipping by Specialists

In consequence of the accusations made in the medical tip affair, Professor Posner offered his resignation from the editorial staff of the *Berliner klinische Wochenschrift*, but the management refused to accept it, and this refusal was sanctioned by the representatives of the medical press association. It seems that while the representatives of the association did not intend their action as a complete vindication of Professor Posner, they thought the matter was not sufficiently clear to make his resignation necessary. Professor Posner has already resigned the presidency of the Deutsche Gesellschaft für Urologie.

Union of Otology and Laryngology

It is proposed to unite these two specialties, but many of the specialists object. To the outsider it seems a small matter. For while it is to the interest of the student that these subjects be well taught, it can make little difference whether they are taught by one man or two. In large cities where specialists are overworked, independence will naturally be favored, but in the smaller universities union will be more convenient.

New Imperial Insurance Law

A new bill for the codification of the insurance legislation has just been printed. Insurance for sickness is extended to agricultural and forestry laborers, messengers and domestic employés. The right of free choice of physician has not been confirmed by law, as was hoped by many physicians. A more detailed consideration of this legislation will be given in a later number.

Work of the School Physicians

During 1907-08, 39,666 pupils in the Berlin public schools (about 17.5 per cent.) were under medical supervision; 6,054 received supervision because of insufficient vitality, 7,334 on account of diseases of the eye, 3,453 on account of affections of the ear, 2,801 on account of curvature of the spine, 2,990 on account of diseases of the nose and throat, 2,775 on account of diseases of the heart, 2,062 on account of hernia, 1,818 on account of scrofula, 1,740 on account of tuberculosis of the lungs, 1,658 for nervous diseases, 1,450 on account of disorders of speech, 1,221 for rickets, 746 for imperfect mental development, 391 for epilepsy, 691 for diseases of the skin, 841 for diseases of the lungs, 381 for tuberculosis of the bones, 411 for lack of education, 177 for diseases of the kidneys and 797 for other diseases.

Operation Punishable as a Bodily Injury

In 1894 the Imperial Court, the highest court in Germany, decided that it constituted an illegal and criminal bodily injury if a physician performed an operation without the consent of the patient or his legal representative, and in such cases it was immaterial whether the purpose or even the results of this bodily injury were shown to be rational and beneficial to the injured person. A short time ago the court in a similar case confirmed the former decision in spite of the fact that meanwhile serious objections had been raised against this opinion both by jurists and physicians. According to this, surgeons must be very careful in their procedure, if they do not wish to come in conflict with the courts and to pay for their good intentions and the success of their art by fines. They can feel absolved from the duty of asking the consent of patients or their relatives before undertaking an operation, only in cases of unconsciousness or insanity or when there is danger in delay; moreover, there is the danger that many patients will suffer injury on account of this judicial opinion because an operation will not be undertaken at the right time in consequence of lack of consent or will be entirely omitted.

Association News

THE COMMERCIAL EXHIBIT

(Concluded from page 1427)

in window-tent construction, will be on exhibition. The standard tent put out by the company has the endorsement of the National Association for the Prevention of Tuberculosis, and has been very generally adopted by the medical profession. Visitors will no doubt be attracted by the complete line of tent ventilators, paper blankets and "everything for fresh air with comfort," which will be shown.

HENRY K. WAMPOLE & COMPANY, PHILADELPHIA. SPACES 16 AND 17.—This company intends to display to physicians the ability of a manufacturing concern to produce on a large scale products that combine therapeutic efficiency with pharmaceutical elegance. It will comprise pulverous pills, compressed tablets, fluidextracts, elixirs, effervescent salts, capsules, etc. Special attention will be directed to bismuth hydrate compound and glycerodine, as preparations illustraing the firm's ability to produce elegant and at the same time efficient products for the physician.

WILMOT CASTLE COMPANY, ROCHESTER, N. Y. SPACE 57.—Its latest designs in sterilizers and sterilizing outfits will be exhibited by this firm, including pressure and non-pressure sterilizers; the efficiency of both processes will be demonstrated. Physicians will thus be able to determine both what kind of sterilizers are best adapted for their uses and also the various methods of heating same. In this connection special attention will be given to electric heating.

WILLIAM WOOD & COMPANY, NEW YORK CITY. SPACE 64.—This firm will present an exhibit arranged on the same general lines as last year. Advance proofs of many of the new illustrations for the forthcoming edition of Cunningham's "Anatomy" will interest students and teachers. New editions of such standard works as Dana's "Nervous Diseases," Ziegler's "Pathology," Baruch's "Hydrotherapy," Cabot's "Physical Diagnosis," and Chapin's "Infant Feeding" will be shown; together with the new "Embryology" by Bailey and Miller, McKay's new "Operations on the Uterus, Perineum and Round Ligaments," Norman Kerr's "Operative Midwifery," Calmette's "Venom's," etc., and many others.

Hotel Headquarters

The following list of hotel headquarters is repeated from the issue of April 3, in which it first appeared:

GENERAL HEADQUARTERS	Marlborough-Blenheim
PRACTICE OF MEDICINE	Hotel Dennis
SURGERY AND ANATOMY	Hotel Chalfonte
OBSTETRICS AND DISEASES OF WOMEN	Haddon Hall
DISEASES OF CHILDREN	Hotel Traymore
NERVOUS AND MENTAL DISEASES	Hotel Brighton
HYGIENE AND SANITARY SCIENCE	Hotel Seaside
PHARMACOLOGY AND THERAPEUTICS	Hotel Chelsea
OPHTHALMOLOGY	Hotel Rudolf
LARYNGOLOGY AND OTOLOGY	Hotel St. Charles
CUTANEOUS MEDICINE AND SURGERY	Hotel Shelburne
PATHOLOGY AND PHYSIOLOGY	Hotel Windsor
STOMATOLOGY	Hotel Royal Palace

Correspondence

Vaccine Therapy of Colds

To the Editor:—In the newspapers recently, there have been several more or less sensational articles in regard to my alleged discovery of the germ of cold, or a new serum or antitoxin for colds.

The facts are as follows: I have not discovered any new germ of colds, or any antitoxin, or antiserum, nor have I made any attempt to do so. I have made some experiments on vaccination for acute coryza, following out in a measure recommendations made by Dr. R. W. Allen in an article which appeared in the *Medical Record*, Dec. 19, 1908. Dr. Allen mentions four orgarisms and gives the dosage used for cure as well as for immunization. He also says that when there is doubt as to the organism, he uses a vaccine containing several of the organisms mentioned.

My method is to use an autogenic vaccine prepared as follows: "Blow" the nose thoroughly to clean out contaminating organisms. Swab out each nostril with a diphtheria swab and inoculate two (to guard against possible loss) agar slant tubes. Incubate twenty-four hours. Prepare a vaccine in the usual way from the growth and inject one cubic centimeter (less for children) hypodermatically. The results in the few cases treated by me are most surprising, the colds in each instance disappearing in twenty-four hours. In one experiment, the immunity has apparently lasted nearly two months. One patient is not "subject to colds," but the others are, almost continually during the winter, and I have never seen anything act so satisfactorily as this method. I intend to use it whenever opportunity offers.

These three experiments prove nothing, but they demonstrate the advisability of continuing the method. Should further experiment confirm its value, there is no reason why the physician without laboratory facilities should not use his diphtheria swabs and send them to a laboratory where the vaccine could be prepared and sent to him for injection, and thus, as one of my medical friends said, "restore the treatment of colds from the drugstore to the physician, where it belongs." Or the practitioner could use the old method and incubate his cultures in a "pocket in his undershirt," or "held with adhesive strips in the axilla."

Dr. Allen advises using his vaccine "at the onset of the attack, or not until the third day, as considerable constitutional disturbance may result if used in the interval." In one of my cases decided constitutional disturbance resulted. Twenty-four hours after "catching cold" the vaccine was ready and injected. About five hours later there was a chill followed by fever, dryness of skin and throat, headache, pains in the joints and general malaise. These symptoms were rather severe for three hours, then after a short nap of about half an hour, largely disappeared, though the headache persisted slightly until next morning. The point of inoculation was decidedly tender the first day and somewhat so the second. The cold was gone in less than a day following inoculation.

The number of bacteria injected has not been estimated, nor has the opsonic index been determined. One injection has been sufficient in each of the three experiments.

I should consider it a favor if anyone who tries this method would communicate his results to me.

CHARLES B. MORREY, Columbus, Ohio.
Professor of Bacteriology, Ohio State University.

An Appeal for Information on Alcohol in Beverages and in Medicines

To the Editor:—As superintendent of the Department of Medical Temperance of the National Woman's Christian Temperance Union, I have been chosen as one of the representatives of the United States Government to the International Congress on Alcoholism to be held in London in July. It has also been arranged that I shall read a paper in the scientific section. All I expect to do with such a paper is to tell what is being done among American medical men in regard to investigations of alcohol, and something of the present trend in the medical use of alcoholic liquors. As I wish to present a fair and truthful picture of the present attitude of American physicians to the alcohol question, I ask that physicians reading this will kindly send me a brief statement of their personal opinion of the use of alcoholic liquors, both as beverages and in the treatment of disease. Professors in medical schools, or health officers, or physicians practicing in connection with large hospitals please state that they are such.

As some who read this may not know what the work of the medical temperance department of the W. C. T. U. is, I may say that this department teaches women to avoid self-drugging, and shows the dangers of resorting to alcoholic liquors for family ills. The work is based entirely on the teachings of eminent physicians. The department began the public agitation against fraudulent "patent medicines," and is keeping

it up, for during the past year I have personally sent out over 20,000 copies of the "Great American Fraud," besides tens of thousands of my own leaflets on that subject. Physicians who understand my work are much interested in it, and many have helped me. May I not hope that a great avalanche of postal cards or letters will reach me in response to this appeal? Will it be fair for me to assume that, if only a few answer, only a few are interested in the questions to be discussed at the Congress on Alcoholism?

(MRS.) MARTHA M. ALLEN, Marcellus, N. Y.

Eye Bandage and Priority of Description

To the Editor:—In reply to Dr. Friedenwald's letter in THE JOURNAL, April 10, page 1196, I wish to state that I have used the eye bandage for ten years, and have failed to find it described or illustrated in the text-books or journals at my disposal. For that reason I published the article. I would not knowingly claim anything belonging to another.

G. A. MORLEY, Crookston, Minn.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

WORMS IN EGGS

To the Editor:—Some time ago one of my patients opened a hen's egg, in the white of which was a small worm about one-twelfth of an inch thick and one and one-half inches long. The egg and the worm were given to me, but were accidentally destroyed. In the *Medical World*, February, 1909, page 62, I find recorded a similar observation. Can you give me any further information on this subject?

WESLEY C. STICK, Hanover, Pa.

ANSWER.—It occasionally happens that intestinal parasites wander from the intestines into the female genital ducts. This is a particularly easy matter in the case of birds, where the intestine and oviduct discharge into a common genitointestinal cloaca. From the brief description of the parasite it is probable that it was a nematode, possibly the *Heterakis perspicillum* (Rudolphi, 1803). This worm lives in the small intestine of fowls, and on wandering into the oviduct may become surrounded by albumin during the formation of the egg, but before the formation of the eggshell. It has been observed in the egg on a number of occasions. The worm has never been reported as a parasite of man and its size would, generally, lead to its discovery before being swallowed. It has, therefore, no practical medical importance.

Occasionally a rather closely allied parasite of man, the common pin worm *(Oxyuris vermicularis)* wanders from the rectum through the anus, and after entering the vagina, makes its way further up the genital tract. Occasionally, too, certain trematodes belonging to the genus *Prosthogonimus* (as *P. ovatus)* are found in the hen's egg. Such cases have been reported by Diesing in 1850, Landois in 1882, Linton in 1887, Spencer in 1889 and Railliet in 1893. These parasites inhabit the bursa fabricii whence they enter the oviduct and are easily included in the albumin before the eggshell is formed.

THE BLACK MOTOR CAR IN THE AUTOMOBILE NUMBER

THE JOURNAL has issued three Automobile Numbers, in 1906, 1908 and 1909. The contributions from physicians published therein have been accepted from the authors as fair and unprejudiced testimonies and very little complaint of any unfairness has come to THE JOURNAL. In the third number, however, March 6, 1909, there was only one contribution referring to the cars made by the Black Manufacturing Company, of 124 E. Ohio St., Chicago. The author of that letter had had unfortunate experience with his car, and his letter was a most unfavorable criticism. The publication of this letter caused a great many protests to be sent to THE JOURNAL from satisfied owners of Black automobiles. Instead of selecting any one of these letters for publication, we will merely say that they are from physicians in various parts of the country who have tested the Black automobile in country practice, over all kinds of roads, including sand and mud. These writers speak as favorably of their cars as do those who use other medium-priced cars. It seems evident, therefore, that it is unfair to judge the products of this company by the testimony of one man whose experience had been unsatisfactory.

MOLDS, CASTS AND MODELS

To the Editor:—THE JOURNAL has made me disgruntled by allowing contributors to speak of all kinds of splints, molds and molded splints indiscriminately as "casts." The iron-worker knows the difference between a mold and a cast, and the artist distinguishes between his models, molds and casts. It is rather irritating, therefore, to find our medical brothers less particular. A recent article reached the point of absurdity. Five times the word "cast" was used when molds or molded splints were meant; and a cast, *i. e.*, a plaster-of-Paris reproduction, of a leg was called, not a "cast," but a "model." A model it certainly was not, for it was not intended for reproduction; instead, an appliance was to be fitted on it. In this case the human leg was the "model" and the cast reproduced it. The cast was not to be used as a model for anything. The editors of THE JOURNAL have taken many liberties with my articles. They have changed anything that seemed good to them, even to the title, and the articles have always gained in clearness thereby. And I can not believe that THE JOURNAL'S contributors would feel hurt if the editors were to rescue them from a misuse of ordinary English words. F. S. M.

ANSWER.—Our correspondent is undoubtedly right in the distinction which he draws between a mold—a form or matrix for shaping something in a fluid or plastic condition—and a cast—a reverse copy, in some plastic material, of a mold. We fail to find, however, that he is fully justified in his contention in regard to the word "model." According to the Standard Dictionary, a model is "an object, usually in miniature, representing accurately something to be made or already existing . . . A model may be either the thing to be copied or the copy that has been made from it." Thus, a miniature reproduction of a ship is called a "model," though not intended to serve as a pattern in making future ships.

TO DISGUISE THE ODOR OF ETHER

To the Editor:—What will effectively disguise the pungent odor of ether? I do not want an oil, but would like some alcoholic or ethereal extract like cologne, etc., that would accomplish the purpose. D. KRAMER, New York.

ANSWER.—Compound esters like ethyl acetate (acetic ether) or amyl acetate, or valerianate might be tried, but some of the essential oils such as oil of wintergreen, sassafras, etc., would be more efficient.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers for the week ended April 24, 1909:

Hartnett, E. H., major, ordered to duty at Fort Du Pont, Del., on the expiration of his present leave of absence.

Murray, A., capt., ordered to Fort Du Pont, Del., instead of the Philippines division.

Tefft, W. H., capt., Fort Baker, Cal., ordered to duty with troops at Sequoia National Park, Cal.

Cox, W., capt., honorably discharged from the service of the United States, with one year's pay.

Richards, R. L., capt., relieved from duty at Fort Wayne, Mich., and ordered to Washington, D. C., for a special course of instruction at the Army Medical School.

Yost, J. D., capt., granted leave of absence for one month.

Coffin, J. M., capt., relieved from duty at the Army and Navy General Hospital, Hot Springs, Ark.; will sail July 5, 1909, for Philippine service.

Snyder, H. D., Smith, A. M., Wilson, J. S., Fuller, L. A., Skinner, G. A., Edger, B. J. Jr., Robbins, C. P., majors, relieved from duty in the Philippines division in time to sail July 15 for San Francisco.

Reynolds, C. R., capt., relieved from duty with Company C, Hospital Corps, and ordered to duty at the Walter Reed Army General Hospital, Washington, D. C.

Woodruff, C. E., major, Kirkpatrick, T. J., major, relieved from duty at Fort Wadsworth, N. Y., and Fort Moultrie, S. C., respectively, in time to proceed to San Francisco and sail July 5, 1909, for Philippine service.

Hess, L. T., major, granted an extension of one month to his leave of absence.

Perley, H. O., colonel, ordered at the expiration of his present leave of absence to Denver, for duty as chief surgeon, Department of the Colorado, and attending surgeon in Denver.

La Garde, L. A., lieut-col., when relieved from duty at Denver, ordered to San Francisco for duty as chief surgeon, Department of California.

Kean, J. R., lieut-col., ordered to New York City, to represent the medical department of the army at the meeting of the Medical Society of the County of New York, April 26, 1909.

Graves, L. K., M. R. C., honorably discharged from the service of the United States May 8, 1909, his services being no longer required; granted leave of absence to include May 8.

Kieruliff, H. N., M. R. C., granted leave of absence for 23 days.

Johnson, T. H., M. R. C., ordered to active duty and assigned to duty at Fort Du Pont, Del.

Foster, G. B., M. R. C., ordered to active duty, and assigned to duty at Fort Totten, N. Y.

Haley, J. C., M. R. C., ordered to active duty, and assigned to duty at Fort Porter, N. Y.

Fox, J. S., M. R. C., ordered to active duty, and assigned to duty at Fort Sam Houston, Texas.

Demmer, C. C., M. R. C., ordered to active duty, and assigned to duty at Fort Ontario, N. Y.

Fisk, O. C., M. R. C., ordered to active duty, and assigned to duty at Fort Leavenworth, Kan.

King, C. T., M. R. C., ordered to active duty, and assigned to duty at the Presidio of Monterey, Cal.

Napier, Edw. L., M. R. C., ordered to active duty and assigned to duty at Fort McPherson, Ga.

Bowman, M. H., M. R. C., ordered from Depot of Recruits and Casuals, Angel Island, Cal., to Fort Baker, Cal., for temporary duty.

Burket, J. A., M. R. C., ordered to active duty, and assigned to Fort Snelling, Minn., for duty.

Chase, A. M., M. R. C., relieved from duty at Fort Sam Houston, Texas, and ordered to Fort St. Philip, La., for duty.

Brown, P. D., M. R. C., relieved from duty at Fort St. Philip, La., and ordered to Fort Sam Houston, Texas, for duty.

Trotter-Tyler, G., M. R. C., ordered to Washington Barracks, D. C., for temporary duty, and then to return to Fort Adams, R. I.

Stallman, G. E., D. S., arrived at Fort Bliss, Texas, for duty.

Hammond, W. G., D. S., left Fort Wingate, N. M., and arrived at Fort Logan, Colo., for duty.

Whinnery, J. C., D. S., ordered from Vancouver Barracks, Wash., to a tour of Alaskan posts—Fort Liscum, Fort William H. Seward, Fort Egbert, Fort Gibbon, Fort St. Michael and Fort Davis.

Lauderdale, C. E., D. S., ordered to Fort Logan, Colo., for duty, at the expiration of his present leave of absence.

Hammond, W. G., D. S., relieved from duty at Fort Logan, Colo., in time to proceed to San Francisco and sail June 5 for Philippine service.

Navy Changes

Changes in the Medical Corps, U. S. Navy, for the week ended April 24, 1909:

Fiske, C. N., P. A. surgeon, detached from the Bureau of Medicine and Surgery, Navy Department, and ordered to temporary duty at the Navy Yard, Washington, D. C.

de Figaniere, P. A., and McMurdo, H. B., acting asst.-surgeons, detached from duty at the Naval Medical School, Washington, D. C., and resignations accepted to take effect April 21, 1909.

Bogert, E. S., Jr., surgeon, detached from the Marine Recruiting Station, New York, and ordered to the Naval Academy.

Kennedy, J. T., surgeon, detached from the *Independence* and ordered to the *Colorado*.

DeValin, C. M., surgeon, orders of March 22 modified: Detached from the *Washington* and ordered to the Navy Yard, Washington, D. C.

Leach, P., surgeon, detached from the *Hancock* and ordered to the Marine Recruiting Station, New York.

Dunn, H. A., P. A. surgeon, detached from the *Colorado* and ordered to the *Independence*.

Turner, H. W. B., asst.-surgeon, ordered to the *Hancock*.

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine-Hospital Service for the seven days ended April 21, 1909:

Geddings, H. D., asst. surgeon-general, relieved from duty in Bureau as assistant surgeon-general, to take effect April 20, 1909.

Geddings, H. D., asst. surgeon-general, directed to proceed to certain points in Europe upon special temporary duty as inspector of vaccine and antitoxin establishments.

McIntosh, W. P., surgeon, granted 7 days' leave of absence from April 24, 1909.

Wertenbaker, C. P., surgeon, directed to report at bureau upon special temporary duty.

Cofer, L. E., P. A. surgeon, detailed to represent the service at the annual meeting of the South Carolina State Medical Association at Summerville, S. C., April 20, 1909.

Robinson, D. E., P. A. surgeon, granted 5 days' leave of absence from March 28, 1909, on account of sickness.

Long, J. D., P. A. surgeon, granted 1 month's leave of absence from May 1, 1909.

Stimson, A. M., P. A. surgeon, relieved from special temporary duty at Los Angeles, Cal., and directed to rejoin station, Washington, D. C.

Hurley, J. R., asst.-surgeon, relieved from temporary duty at San Francisco quarantine and directed to proceed to Manila, P. I., and report to the chief quarantine officer for duty.

Blanchard, J. F., acting asst.-surgeon, granted 1 day's extension of leave of absence, April 16, 1909.

Delgado, J. M., acting asst.-surgeon, granted 2 days' extension of annual leave from April 6, 1909, on account of sickness.

McLarty, A. A., acting asst.-surgeon, granted 3 days' leave of absence from April 6, 1909, under paragraph 210, Service Regulations.

BOARD CONVENED

Board of medical officers convened to meet at the Marine Hospital, San Francisco, Cal., May 3, 1909, for the examination of candidates for admission to the service as asst.-surgeon. Detail for the board: Surgeon H. W. Austin, chairman; P. A. Surgeon Rupert Blue; P. A. Surgeon F. E. Trotter, recorder. April 15, 1909.

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended April 23, 1909:

SMALLPOX—UNITED STATES

Alabama: Birmingham, March 1-31, 10 cases.
California: Los Angeles, March 27-April 3, 1 death.
Georgia: Macon, April 4-11, 6 cases.
Illinois: Alton, March 1-31, 1 case; Galesburg, April 3-10, 2 cases.
Indiana: Indianapolis, April 4-11, 1 case; LaFayette, April 5-12, 1 case.
Iowa: Council Bluffs, April 5-12, 1 case; New Hampton, Feb. 26-April 15, 8 cases.
Kansas: Kansas City, April 3-10, 2 cases; Topeka, March 6-April 3, 12 cases.
Kentucky: Covington, April 3-10, 2 cases; Lexington, 1 case; Paducah, March 26-April 3, 1 case.
Michigan: Saginaw, March 26-April 3, 2 cases.
Minnesota: Duluth, April 1-8, 6 cases.
Montana: Butte, March 30-April 6, 2 cases.
Nebraska: South Omaha, April 3-10, 2 cases.
New Jersey: Camden, April 3-10, 1 case; Lodi, March 12, 1 case.
North Dakota: Sherwood and vicinity, Jan. 12-April 5, 73 cases.
Ohio: Cincinnati, April 1-7, 7 cases.
Texas: San Antonio, April 3-10, 1 case.
Virginia: Richmond, April 3-10, 1 case.
West Virginia: St. Albans, Feb. 16-April 12, 19 cases.
Wisconsin: LaCrosse, April 3-10, 2 cases; Milwaukee, March 13-April 3, 23 cases; Racine, April 3-10, 1 case.

SMALLPOX—FOREIGN

Algeria: Bona, Jan. 1-31, 16 cases, 7 deaths; Feb. 1-28, 25 cases, 13 deaths.
Brazil: Para, March 20-27, 1 case, 1 death; Pernambuco, Feb. 15-28, 5 deaths; Rio de Janeiro, Feb. 27-March 7, 25 cases, 14 deaths.
Canada: Halifax, March 27-April 3, 2 cases.
Ceylon: Colombo, Jan. 23-Feb. 13, 31 cases, 9 deaths.
China: Tientsin, Feb. 20-27, 1 case.
France: Paris, March 20-27, 3 cases.
Great Britain: Bristol, March 20-27, 1 death.
India: Bombay, March 9-16, 18 deaths; Calcutta, Feb. 27-March 6, 315 deaths; Madras, March 6-13, 1 death; Rangoon, Feb. 27-March 6, 8 deaths.
Indo-China: Saigon, Feb. 20-27, 7 cases, 5 deaths.
Italy: General, March 21-28, 2 cases; Catania, March 20-27, 2 cases; Naples, March 21-28, 16 cases.
Java: Batavia, Feb. 20-March 6, 9 cases, 1 death.
Mexico: Guadalajara, March 25-April 1, 2 deaths; Monterey, March 29-April 4, 3 deaths.
Newfoundland: St. Johns, March 22-April 3, 2 cases.
Peru: Lima, March 25, 1 case, in lazaretto.
Portugal: Lisbon, March 20-April 3, 11 cases.
Russia: Moscow, March 13-20, 19 cases, 11 deaths; Odessa, March 13-April 2, 1 case; Riga, March 29-April 5, 1 case; Warsaw, Jan. 16-30, 6 cases.
South Africa: Cape Town, March 6-13, 1 case.
Spain: Barcelona, March 22-29, 2 deaths; Valencia, March 19-26, 5 cases, 3 deaths; Vigo, March 20-27, 1 case.
Straits Settlements: Penang, Feb. 27-March 6, 1 case, imported.
Tripoli: Tripoli, March 20-27, 2 deaths.
Turkey: Constantinople, March 20-28, 1 death; Smyrna, Feb. 26-March 4, 2 deaths; March 18-25, 3 deaths.

YELLOW FEVER

Barbados: March 27-April —, 3 cases, 2 deaths.
Ecuador: Guayaquil, March 13-20, 26 cases, 10 deaths.

CHOLERA

India: Bombay, March 9-16, 1 death; Calcutta, Feb. 27-March 6, 67 deaths; Rangoon, 3 deaths.
Russia: St. Petersburg, March 27-31, 13 cases, 3 deaths.

PLAGUE

Brazil: Rio de Janeiro, Feb.28-March 7, 5 cases, 1 death.
Chile: Antofagasta, March 1-20, 24 cases; Iquique, March 21, 26 cases, in lazaretto.
Ecuador: Guayaquil, March 13-20, 5 cases, 3 deaths.
India: General, March 30-April 6, 5,033 cases, 4,109 deaths; Bombay, March 9-16, 286 deaths; Calcutta, Feb. 29-March 6, 71 deaths; Rangoon, 9 deaths.
Peru: General, March 13-27, 54 cases, 25 deaths; Callao, March 14-27, 4 cases.

Marriages

E. R. SAUSSER, M.D., to Miss Eleanor Moore, both of Philadelphia, April 14.

JAMES JOSEPH ROACH, M.D., to Miss Edna Nacey, both of Chicago, April 20.

FRED A. METTS, M.D., Ossian, Ind., to Miss Mabel Sanders of Sarnia, Ont., April 14.

JOHN NORMAN HENRY, M.D., to Miss Mary K. Gibson, both of Philadelphia, April 13.

ROBERT HURTIN HALSEY, M.D., to Miss Edith Bates, both of New York City, April 14.

ARNOLD KNAPP, M.D., New York City, to Miss Julia James Long, at Camden, S. C., April 14.

EUGENE A. HILDRETH, M.D., to Miss Mary Elizabeth Hazlett, both of Wheeling, W. Va., April 15.

EUGENE F. RAPHEL, M.D., Wheeling, W. Va., to Miss Julia Cairns Cherbonnier, at Baltimore, April 12.

ROBERT T. MILLER, JR., M.D., Baltimore, Md., to Miss Mary Edes Hooper, at Bridgewater, Mass., April 15.

EDWARD CUSSLER, M.D., New York City, to Miss Mary Lansing Catlin of Washington, D. C., April 22.

WILLIAM B. WARTHEN, M.D., Bartow, Ga., to Mrs. Sallie Bell Newsom of Davisboro, Ga., at Macon, Ga., April 15.

LAUNCELOT LONGSTREET MINOR, M.D., Hollywood, Miss., to Miss Louise Bragg of Arlington, Tenn., at Memphis, April 13.

Deaths

Joseph H. Chittenden, M.D. Bellevue Hospital Medical College, New York City, 1864; a member of the Medical Society of the State of New York; from 1869 to 1870 president and from 1879 to 1884 secretary of the Broome County Medical Society; a member of the Binghamton Academy of Medicine; consulting physician to the Binghamton Hospital; physician to the Susquehanna Valley Orphans' Home; contract surgeon in the Army during the Civil War; jail physician of Binghamton for several years; a member and in 1881 and 1884 president of the school board; died suddenly at his home in Binghamton, April 14, from heart disease, aged 69.

Edgar Thrush Duke, M.D. University of Maryland, Baltimore, 1891; a member of the Medical and Chirurgical Faculty of Maryland; formerly president and for several years secretary of the Allegany County Medical Society; one of the organizers of the Western Maryland Training School for Nurses; died at his home in Cumberland, April 13, from pneumonia, aged 43. At a called meeting of the Cumberland Academy of Medicine, resolutions were unanimously adopted regarding the death of Dr. Duke, and the medical profession of the city in a body attended his funeral.

Samuel Marshall Orr, M.D. Jefferson Medical College, Philadelphia, 1879; of Anderson, S. C.; a member of the first State Board of Medical Examiners; a member of the South Carolina Medical Association, and once president of the Anderson County Medical Association; local surgeon for the Charleston and Western Carolina and Blue Ridge Railways; president and trustee of the Anderson Water, Light and Power Company, and president and treasurer of the Orr Cotton Mills; died at Johns Hopkins Hospital, Baltimore, April 14, after a surgical operation, aged 53.

Albert H. Simonton, M.D. Cincinnati College of Medicine and Surgery, 1893; from 1898 to 1902 contract surgeon in the United States Army; and afterward chief surgeon of the Arkansas Southwestern Railroad at Fordyce; died at his home in Chicago, April 19, from the effects of morphin, believed to have been self-administered with suicidal intent, while despondent, aged 63.

Frank Winthrop Draper, M.D. Harvard Medical School, Boston, 1869; for thirty-five years professor of legal medicine in his alma mater; a member of the Massachusetts Medical Society and an authority on medicolegal topics; a veteran of the Civil War; from 1877 to 1905 medical examiner of Suffolk county; died at his home in Brookline, April 19, from pneumonia, aged 66.

William Hungerford Burr, M.D. University of Maryland, Baltimore, 1884; a member of the American Medical Association; for four years surgeon in charge of the Santa Fe System Hospital and surgeon to the Clark Coal Company, Gallup, N. M.; died in the Santa Fe Hospital, Albuquerque, N. M., April 13, from pneumonia, aged 49.

Robert H. Alvis, M.D. University of Nashville (Tenn.), 1874; a member of the Oklahoma State Medical Association and of the Frisco System Medical and Surgical Society; physician of Carter county, Okla., and local surgeon of the Frisco system at Ardmore; died suddenly at his home in that city, April 15, from nephritis, aged 57.

Charles W. Power, M.D. Western Reserve Medical College, Cleveland, Ohio, 1888; of Wooster, Ohio; chief surgeon of the construction work of the Harriman System in Mexico and Arizona; and prior to that a medical missionary in Korea; died in Nogales, Ariz., March 20, six days after an operation for abscess of the liver, aged 49.

Hervey Prentice Hudson (license, Tenn., 1889); of Woodland, Tenn.; a member of the Tennessee State Medical Association; formerly president of the Haywood County Medical Association; county physician and formerly health officer of Hanley, Tenn.; died in Brownsville, April 6, from cerebral hemorrhage, aged 57.

Rosa Freudenthal Monnish, M.D. Georgia College of Eclectic Medicine and Surgery, Atlanta, 1882; who on March 24 is said to have been found guilty of illegal use of the mails; died at her home in Atlanta, April 19, from the effects of hydrocyanic acid, taken, it is believed, with suicidal intent.

William Lee Richardson, M.D. Jefferson Medical College, Philadelphia, 1848; a member of the American Medical Association; and said to be the oldest member of the Medical Society of the State of Pennsylvania; died at his home in Montrose, March 19, from influenza, aged 93.

Benjamin F. Gamber, M.D. Homeopathic Hospital College, Cleveland, Ohio, 1877; formerly professor of anatomy, physiology and hygiene in his alma mater; of Oakland, Cal.; a fellow of the Royal Microscopical Society; died in Lancaster, Pa., April 14, from nephritis, aged 65.

Lucius Maltby Barney, M.D. Denver (Colo.) College of Medicine, 1902; medical director of the Health and Accident Company, Denver; formerly a member of the Colorado State Medical Association; died at Palisades, Colo., from meningitis, April 7, aged 38.

John Milton McCanna, M.D. Jefferson Medical College, Philadelphia, 1905; of Mount Joy; a member of the Medical Society of the State of Pennsylvania; died in the Lancaster General Hospital, April 16, from tuberculosis of the liver, aged 34.

Joseph J. Thaxton, M.D. Jefferson Medical College, Philadelphia, 1840; for fifty years a practitioner of Person County, N. C.; and since 1890 a resident of Durham; died at the home of his daughter in that city, April 12, from senile debility, aged 91.

Pierce Elliott Dean, M.D. University of Alabama, Mobile, 1892; a member of the Medical Association of the State of Alabama; died at his home in Wedowee, Ala., Aug. 29, 1908, from paralysis of the pneumogastric nerve, aged 59.

James Wilson Bryant, M.D. Medical College of Virginia, Richmond, 1876; for many years local surgeon of the Norfolk and Western Railroad at Crewe, Va.; and mayor of that city; died at his home April 12, aged 56.

Alonzo Lyons Whitcomb, M.D. Northwestern University Medical School, Chicago, 1874; a member of the Arkansas Medical Society; died suddenly at his home in Rogers, Ark., April 10, from cerebral hemorrhage, aged 60.

Walter Sheridan Owen, M.D. University of Louisville, Ky., 1907; formerly of Muskogee, Okla.; a member of the Oklahoma State Medical Association; died at his home in Rogers, Ark., April 4, from tuberculosis, aged 29.

John P. H. Gray, M.D. Missouri Medical College, St. Louis, 1856; for three terms a member of the Missouri Legislature from Moniteau county; died at his home in California, Mo., February 11, from paralysis, aged 87.

Fletcher C. Lawyer, M.D. Jefferson Medical College, Philadelphia, 1873; of Missoula, Mont.; died February 17, from erysipelas complicating diabetes, in Los Angeles, Cal., where he had gone for his health, aged 55.

Jacob Stevenson Nichols, M.D. Bellevue Hospital Medical College, New York City, 1872; a member of the North Texas Medical Society; died at his home in Handley, Texas, January 25, from pneumonia, aged 64.

Ira Steinberger, M.D. American Medical College, Eclectic, St. Louis, 1880; one of the earliest settlers in Neosho county, Kan.; a practitioner of Erie for nearly forty years; died at his home, April 8.

Juan Louis Zabala, M.D. College of Physicians and Surgeons, New York City, 1897; at one time coroner's physician of San Francisco; died in Salinas, Cal., April 11, from typhoid fever, aged 38.

Andrew McBride, M.D. Medical College of the State of South Carolina, Charleston, 1889; of Holder, Fla.; died in St. Leo's Hospital, Greensboro, N. C., July 26, 1908, from typhoid fever.

George E. Tytler, M.D. New York Homeopathic Medical College, New York City, 1873; died at his home in New York City, April 16, from cerebral hemorrhage, aged 60.

John R. Wampler, M.D. American Eclectic Medical College of Ohio, Cincinnati, 1888; died at his home in Dayton, Ohio, April 13, from dilatation of the heart, aged 59.

Leonidas O. P. Wolfe, M.D. Rush Medical College, Chicago, 1866; of Mauckport, Ind.; died suddenly at the home of his brother in that place, March 30, aged 67.

Joseph Harvey Lovell, M.D. Hygieo-Therapeutic College, New York City, 1873; died at his home in Langhorne, Pa., July 28, 1908, from paralysis, aged 74.

Joseph S. Boone, M.D. Cincinnati College of Medicine and Surgery, 1872; a veteran of the Civil War; died at his home in Powhatan, Ohio, April 2, aged 69.

Garrison Brown, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1878; died at his home in Crescent City, Ill., April 13, from pneumonia, aged 62.

Cora Lee Outcalt, M.D. Hahnemann Medical College, Chicago, 1902; formerly of Ottawa, Ill.; died at her home in Chicago, April 20, from carcinoma, aged 47.

R. Frank C. Browne (license, R. I., years of practice, 1895); died in his apartment in Providence, R. I., April 12, from heart disease, aged 53.

Alonzo Bryan, M.D. Medical College of Ohio, Cincinnati, 1875; of Detroit; died in the Red Cross Hospital in that city, April 13, aged 69.

John A. Parke, M.D. Trinity Medical College, Toronto, 1894; of Arcola, Sask.; died at Feversham, Ont., recently, from heart disease.

Thomas P. Blunt (license, Ark., 1903); died at his home in Little Rock, April 7, from cancer of the intestine, aged 52.

Henry James Metcalfe, M.D. McGill University, Montreal, 1873; died at his home in Thurso, Que., April 15, aged 58.

Charles Harris McKenna, M.B. University of Toronto, 1899; died at his home in Dublin, Ont., January 1.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

A Physician's Review Course

Comparatively few physicians feel able to spare the time necessary to take an annual postgraduate course, yet the need of keeping abreast of the progress in medical knowledge is a very real one. The advantage of a brief review course, especially in laboratory work, is evident, a fact which at least one state has recognized.

The board of regents of the University of Nebraska, at the instance of its medical faculty, has authorized the introduction of an annual review course of one week's duration, which is "open to all graduates of reputable medical schools." Stress is laid on the fact that this is not a postgraduate course as such is usually understood. "It is a course in which a practitioner is able to make a more intimate acquaintance with prominent advances in medicine than is possible through the medium of text-books or journals." These courses are exclusively for practitioners, and are given at the state university. They are made even more valuable by being given during the week just preceding the meeting of the state medical society; this year they commenced Monday, April 26 and closed Saturday, May 1, the Nebraska State Medical Association convening May 4. By this arrangement physicians who wish to attend their state meeting can, by leaving a week earlier, take in both the review course and the association meeting.

The general outline of the course is: Clinical work in the mornings, lectures and laboratory work in the afternoons, while formal and technical lectures followed by full discussions are given in the evenings. The subjects dealt with in this year's course included anatomy, bacteriology and pathology, chemistry, clinical diagnosis, histology, medical zoology, orthopedics, pathologic diagnosis, pharmacodynamics, physiology, psychiatry and surgical diagnosis.

A New County Society Bulletin

The Hennepin County (Minnesota) Medical Society has begun to issue a monthly bulletin, a four-page folder, containing the programs of coming meetings, announcements regarding medical society matters, names of physicians proposed for membership, etc. The publication of bulletins, either weekly or monthly, by the larger medical societies affords a regular, cheap and efficient means of communication with members.

Local Secretaries Organize

The secretaries of the branch and affiliated societies of the Chicago Medical Society have organized a Secretaries' Association to cooperate with the officers of the Chicago Medical Society to increase the efficiency of the work of the organization. Two meetings will be held during the year, one in September and one in January. At the first meeting, held April 1, organization was effected and officers elected, sixteen of the twenty-five societies being represented. This movement is an extension of the plan of county secretaries' meetings, such as have been held in a number of states. The new society will doubtless be of great assistance in facilitating the work of organization in Cook county.

The Optometry Bill and the Practice of Medicine

A bill is before the legislature of the state of Illinois to have a so-called optometry bill enacted to license persons to fit glasses and treat certain diseases of the ocular apparatus.

The medical profession is opposed to the passage of such legislation for the following reasons:

1. The examination of the eye with ophthalmologic instruments for the discovery of visual defects and their cure is the proper function of the educated, trained and experienced physician. As is well known, the determination of the refraction is often the smallest and least important part of the treatment of weakness of sight or defective vision.

2. The work of the skilled optician is that of grinding, mounting and adjusting glasses. The optician who knows nothing whatever about anatomy, physiology or pathology is utterly incompetent to decide what the meaning of a patient's symptoms may be. It sometimes means the need of glasses; quite often it has nothing to do with that need. The determination of this important question can, in the interest of the patient, be only settled by one who has made a study of human anatomy, physiology, pathology, etc.; in other words, by the educated, graduated and trained physician.

3. The functions of the optician and the duly qualified medical man should be kept separate in the same manner and for the same reasons that the druggist's business of filling prescriptions is by law distinctly separated from the physician's business of prescribing. In our opinion, the proper relations of the druggist and the optician are analogous. In the case of the druggist the law wisely forbids the druggist to prescribe medicine or to sell certain drugs and compounds without the authority of the physician's prescription. It is believed by the medical profession that, in the interests of the patients, the optician should be restricted in a similar manner.

Any persons desiring to practice medicine or any of the specialties of the medical profession should qualify themselves for it in the regular way prescribed by law, and not seek to get in by way of a side door, i. e., by getting a diploma from any board of examiners other than the now lawfully constituted boards.

For the reasons stated, the medical profession is opposed to permitting examination of eyes for fitting glasses beyond the ordinary use of test cards, or by the employment of ophthalmologic instruments of any kind in the testing of eyesight, by any persons who are not regular medical practitioners, be they styled opticians, eyesight specialists, optometrists, doctors of optometry or refractionists.

A. H. ANDREWS, Chairman,
WILLIS O. NANCE, Secretary,
THOMAS FAITH,
W. L. NOBLE,
THOMAS A. WOODRUFF,
Committee on Legislation of the Chicago Ophthalmological Society.

POSTGRADUATE COURSE FOR COUNTY SOCIETIES

DR. JOHN H. BLACKBURN, DIRECTOR
BOWLING GREEN, KENTUCKY

[The Director will be glad to furnish further information and literature to any county society desiring to take up the course.]

Tenth Month

General Subject for the Month: Diseases of the Ear

First Weekly Meeting

ANATOMY OF THE EAR

EXTERNAL EAR.—(1) Auricle: Structure, shape, attachments, helix, antihelix, fossæ, tragus, antitragus, lobule. (2)

External Auditory Canal: Structure, diameters, length, direction, portions, ceruminous glands. Relations of each wall. Blood and nerve supply, lymphatics.

MIDDLE EAR.—Membrana tympani: Location, plane, attachments, structure, Shrapnell's membrane, Prussak's space, membrana vibrans, umbo, handle of malleus, blood vessels and nerves. Tympanic cavity: Location, boundaries and relations; contents, ossicles, shape and attachments of each; fenestrum ovale; Eustachian tube, length, boundaries, structure; aditus ad antrum; mastoid process, antrum, cells, situation and size, roof, floor and walls, relations of each suprameatal triangle.

INTERNAL EAR.—Osseous boundaries. Vestibule, cochlea, semicircular canals, endolymph, organ of Corti, otoliths, distribution of auditory nerve.

PHYSIOLOGY OF HEARING

Function of auricle, tympanic membrane; ossicles, connections, modes of action; muscles of middle ear, attachments, function of each; Eustachian tube; cochlea, semicircular canals, utriculus and sacculus. Distribution of auditory nerve. Properties of sounds. Harmony and discord.

Reference books for the tenth month: Politzer: Diseases of the Ear. Barnhill and Wales: Modern Otology. Ballenger: Diseases of Nose, Throat and Ear. Dench: Diseases of the Ear. Bacon: Manual of Otology. Love: Diseases of the Ear. Kyle, J. J.: Manual of Diseases of the Ear, Nose and Throat. Gleason's Manual of Diseases of Ear, Nose and Throat. Whiting: The Modern Mastoid Operation.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

FLORIDA: Tallahassee, May 19-20. Sec., Dr. J. D. Fernandez, Jacksonville.
MASSACHUSETTS: State House, Boston, May 11-13. Sec., Dr. Edwin B. Harvey, Room 159, State House.
MISSISSIPPI: State Capitol, Jackson, May 11-12. Sec., Dr. S. H. McLean.
MISSOURI: Kansas City, May 17-19. Sec., Dr. J. A. B. Adcock, Warrensburg.
MISSOURI: Kansas City, May 17-19. Sec., Dr. J. A. B. Adcock,
NEBRASKA: State Capitol, Lincoln, May 25-27. Secretary, Dr. E. J. C. Sward, Oakland.
NEW YORK: Albany, May 18-21. Dr. Charles F. Wheelock, Albany.

COUNCIL ON MEDICAL EDUCATION OF THE AMERICAN MEDICAL ASSOCIATION

Fifth Annual Conference, held at the Auditorium Hotel, Chicago, April 5, 1909

(Continued from page 1353)

Report of the Secretary

Following the address of the Chairman, the Secretary of the Council, Dr. N. P. Colwell, gave the following report of the work of the past year

Mr. Chairman, Members of the Council and Delegates:

Gentlemen:—For five years the Council on Medical Education has been working for higher and more uniform standards of medical education. In this time so many changes for the better have been brought about that some references to them in the course of this report should be made. Such influence as the Council may have had toward these improvements has been due largely to the following facts:

1. The Council is the permanent committee on education of the medical profession of America, represented by the American Medical Association. As such, its interests are national and its object is the betterment of medical education in all sections of the country.

2. It is a permanent committee, thereby exerting a constant, steady pressure for improvement, not possible through temporary committees, however excellent their work might be.

3. Its permanent headquarters at the home of the medical profession of America and its connection with the *Journal of the American Medical Association*, with its extensive correspondence, made it possible to obtain much information regarding medical education which otherwise could not have been secured.

4. An abundance of information has been collected, tabulated and published regarding medical colleges, standards, students, graduates, facilities and equipment, as well as much information regarding the requirements for license to practice medicine both in this country and abroad. There has also been collected considerable information regarding elementary, secondary and collegiate education.

5. Indeed, "knowledge is power," and this information, formerly not to be had, has thrown much light on medical education, revealing quite clearly problems which otherwise could not have been seen.

6. As problems have arisen they have been presented at these conferences for discussion and some movements have been started which are rapidly bearing fruit. On the whole, much has been accomplished, which will be briefly outlined in the following report, showing the present status of preliminary and medical education in the United States:

PRELIMINARY EDUCATION.

Investigation reveals much confusion in standards not only among medical schools, but also in high schools, colleges and all other departments of education. No previous time, however, has seen so many forces at work in the effort to standardize the different departments and to develop system and uniformity.

High Schools.—Many of the states are seriously lacking in good high schools, which observation applies as much to a number of states north of the Mason and Dixon line as to those south of it. In fact, there are very few states which have all their high schools well organized, well equipped and supplied with well qualified, college-trained teachers. This department of education is now being systematically taken up by various organizations, including the General Education Board, and throughout the southern states a high-school inspector with the title of a "Professor of Secondary Education" has been placed with each state university. Public sentiment throughout the south is rapidly being awakened and already vast sums have been appropriated by legislatures to develop high schools. Leading educators in the south state that within four to five years that section will be fairly well provided with four-year high schools.

Colleges and Universities.—Several educational organizations, including the Associations of Universities and the Carnegie Foundation for the Advancement of Teaching, are now at work in an effort to standardize colleges and universities, many of which at the present time, from an educational standpoint, have no right to such titles, since they give courses of little more, or even of less value, than those in some of the better high schools.

The Carnegie Foundation for the Advancement of Teaching has also fixed an entrance requirement to universities consisting of 14 units of high school work, a unit being defined as representing 5 weekly recitations of 40 minutes each for a year. The 14 units adopted require four years of high school work superimposed upon eight years in the elementary grades and involve a fair distribution of time among different subjects.

PRELIMINARY REQUIREMENTS OF MEDICAL SCHOOLS

Eleven medical colleges already require two or more years of work in a college of liberal arts for admission. These colleges and the years when such requirement began are as lows:

College.	Began.
Johns Hopkins University Medical Department	1893
Harvard Medical School	1900
Western Reserve University, Medical Department	1901
University of Chicago, Rush Medical College	1904
University of California, Medical Department	1905
University of Minnesota, Coll. of Med. and Surg	1907
University of Minnesota, Homeopathic Department	1907
University of North Dakota, College of Medicine	1907
University of Wisconsin, College of Medicine	1907
Cornell University Medical College	1908
Lake Forest College, School of Medicine	1908

Eighteen other colleges have definitely announced an increase in their entrance requirements to two or more years in a college of liberal arts. These and the dates when such requirements will become effective are as follows:

College.	Begins
Leland Stanford Junior University, Department of Medicine	1909
Yale Medical School	1909
*Northwestern University Medical School	1909
University of Kansas, School of Medicine	1909
University of Michigan, College of Medicine	1909
*University of Nebraska, College of Medicine	1909
University of South Dakota, College of Medicine	1909
University of Colorado, School of Medicine	1910
†Indiana University School of Medicine	1910
†State University of Iowa, Colledge of Medicine	1910
Drake University, College of Medicine	1910
‡University of Missouri, Department of Medicine	1910

John A. Creighton Medical College	1910
Dartmouth Medical School	1910
Columbia University, College of Physicians and Surgeons	1910
†Syracuse University, College of Medicine	1910
‡University of Pennsylvania, Medical Department	1910
†University of Utah, Medical Department	1910

* One year required for the session of 1908-09.
† Will require one year for the session of 1909-10.
‡ One year has been required since 1906.

The 21 following colleges either already require one year of work in a college of liberal arts in addition to a four-year high school course, or have announced their intention to do so on or before the year given:

College.	In Force.
Fordham University, School of Medicine	1908
University of North Carolina, Medical Department	1909
Oakland College of Medicine and Surgery	1910
Denver and Gross College of Medicine	1910
College of Physicians and Surgeons, Chicago	1910
Hahnemann Medical College, Chicago	1910
Kansas Medical College	1910
Tulane University of Louisiana, Medical Department	1910
St. Louis University School of Medicine	1910
Washington University, Medical Department	1910
University of Cincinnati, Medical Department	1910
Starling-Ohio Medical College	1910
Cleveland College of Physicians and Surgeons	1910
University of Oklahoma School of Medicine	1910
University of Oregon, Medical Department	1910
Vanderbilt University, Medical Department	1910
University of Texas, Medical Department	1910
*University of Virginia, Department of Medicine	1910
West Virginia University, College of Medicine	1910
Marquette University Medical Department	1910
Wisconsin College of Physicians and Surgeons	1910

* Requires a three year high school course plus one year of college work.

Several other colleges announced to us that higher requirements had been adopted. Two have since rescinded their action, five have merged into other colleges, and others, on inspection, being found unworthy of recognition, were omitted from the lists. The schools above named, however, have made definite statements in their announcements regarding the increase in their entrance requirements and doubtless mean what they say.

In support of these higher standards, the State Examining Boards of six states have established higher requirements of preliminary education. These states and the years when the requirement will become effective are as follows:

State Examining Board of	No. of years Required.	Affects students matriculating	Affects all applicants after
Minnesota	2	1908-09	1912
Connecticut	1	1908-09	1912
North Dakota	2	1907-08	1911
South Dakota	1	1907-08	1911
Colorado	1	1908-09	1912
Kansas	1	1910-11	1914

Several other states are contemplating a similar increase in their requirements of preliminary education. In some of these the increase would doubtless be welcomed, since medical colleges have already adopted the increased requirements.

MEDICAL COLLEGE MERGERS

Since our last conference there have been five important mergers of medical colleges by which nine medical schools are replaced by four stronger ones. These mergers were as follows:

1. At Louisville, Ky., the Louisville and Hospital Medical College, the Kentucky School of Medicine and the University of Louisville Medical Department united, retaining the name of the University of Louisville Medical Department. This leaves but one regular medical college in Louisville, where there were five colleges two years ago. As a direct result of this merger, the school has received $25,000 from the city of Louisville, and steps have been taken to build a new city hospital, which is to be largely under the control of the medical school.

2. At Cincinnati, the merger between the Medical College of Ohio and the Miami Medical College has been completed, the new school to be the Medical Department of the University of Cincinnati. The building of an enormous new city hospital has already been started near the university campus and a new medical college building will be erected adjoining this hospital. The outlook for this new school is very encouraging.

3. The Keokuk Medical College, College of Physicians and Surgeons, located at Keokuk, Iowa, has turned all its property and good will over to the Drake University, College of Medicine, at Des Moines, Iowa.

4. The University of Southern California, College of Medicine, at Los Angeles, has united with the University of California, whereby it becomes the Los Angeles Medical Department of the state university. The work of the first two years will be at Berkeley, the student being allowed to take his clinical work either at San Francisco or Los Angeles.

5. The Cooper Medical College, beginning this fall, will be the Medical Department of Leland Stanford, Jr., University, located at Palo Alto, Cal. Three years of work in the liberal arts' department will be required for admission. The first three semesters of medical work will be given on the University campus at Palo Alto, the last five at San Francisco.

NIGHT TEACHING ABANDONED

Information has been received that the teaching of medicine to students attending only at night or after 4 o'clock p. m., has been abandoned by George Washington University and by Howard University, both located at Washington, D. C., and by Temple College Medical School at Philadelphia. This still leaves four medical night schools, three of which are at Chicago and one at St. Louis.

GRANTING OF ADVANCED STANDING

It is a rather deplorable practice, even with some of the supposedly better grade medical colleges, to allow advanced standing with little or no restrictions for work done in some of the medical schools known to be of extremely low grade, from night schools and even from schools not generally recognized by law as medical schools. It is quite encouraging, therefore, to note that an increasing number of colleges are limiting such advanced standing to those colleges which are of known merit.

NEEDS AS REVEALED BY THE INVESTIGATION OF MEDICAL COLLEGES

An investigation of medical education in the United States covering a period of five years and which included one or more personal inspections of each individual medical school, has revealed numerous defects in the teaching of medicine, some of which may be briefly stated as follows:

1. There are too many medical colleges in this country. As shown a years ago,[1] the United States has nearly as many colleges as the rest of the civilized world combined. The majority of them depend on the fees of students to pay their running expenses.

2. This has led to an active competition for students to an utter disregard of preliminary requirements, which has not only prevented the medical school from obtaining well-trained students, but has also hindered the development of the high schools, since students were and are still being admitted with only a grammar school education.

3. The medicine of 15 or 20 years ago is still being taught by a number of our colleges. Even that could be better taught if the students taking such work were required to have a preliminary training the equivalent of a four-year high school education.

4. The medicine of to-day, however, really requires of the student a more extensive and thorough preliminary training than is possible in the vast majority of our secondary schools. Experience has shown that this additional preliminary training for medicine should consist of at least one year's work in physics, chemistry and biology, and that a reading knowledge of German and French should also be required.

5. The medicine of to-day demands teachers rather than practititioners. For the fundamental medical sciences there should be not less than five or six instructors who have had special, thorough training in anatomy, histology and embryology, physiology, physiologic chemistry, pharmacology, pathology and bacteriology, and these men should be paid salaries sufficient to permit them to devote their entire time to teaching and research, unhampered by the necessity of keeping up an active practice for a livelihood.

6. In order to properly teach medicine to-day, medical colleges must have hospitals either owned by them or entirely under their control so far as the clinical material is concerned. This is one of the greatest needs of medical teaching to-day. Our medical students must come into closer contact with patients in hospital wards and dispensaries, where they should be given a systematic, careful training in writing histories, as well as in the methods of the clinical laboratory.

7. If the medical college is of high standard, hospital patients would be benefited by the presence of the students. The attending physician is going to be far more careful in his

1. THE JOURNAL A. M. A., May 16, 1908, page 1639.

examinations and treatment if he is being watched by a few keen-witted medical students. Again, even pay patients seldom object to examination by one or two students in the presence of the physician. In fact, in one hospital where free ward patients were regularly placed in charge of senior students under the direction of the attending physician, a number of patients asked to be given similar attention under the impression that their cases were not receiving as thorough investigation as the others, which may have been true.

8. In many instances our medical schools are run as medical "institutions," manned by busy practitioners for whom the college work is an insignificant side-issue, rather than as medical colleges in the hands of teachers, for whom the practice of medicine is no consideration except for those connected with the clinical chairs. Even the occupants of the clinical chairs should be selected for their ability as teachers rather than because of their practice, or because they are on the attending staff of this or that hospital.

9. Another serious need is proper supervision, since a number of medical colleges have an abundance of clinical material, but for want of proper oversight are not taking advantage of it. A smaller amount of material carefully used is sometimes better than a large amount of material without careful supervision, since in the latter case the student is apt to develop superficial habits.

10. This supervision should also extend to keeping the buildings clean. The uncleanliness of the buildings and laboratories of some of our medical colleges makes one question the possibility of their teaching asepsis, or even ordinary cleanliness.

11. A number of medical schools have not yet adopted the recent methods of embalming anatomic material by which the work of dissection is much more agreeable. A larger number have not provided frozen cross-sections, prepared anatomic specimens, or other modern adjuncts which are so useful in the teaching of anatomy.

12. Medical education is but one of the departments of our general system of education, and should be brought into harmony with all other departments. The interests of all departments of education are mutual. What helps one should help all. Medical schools must depend on the high schools, colleges and universities to furnish the preliminary training for medical students. The medical school might also obtain many valuable suggestions from the liberal arts' colleges in regard to supervision, standards of equipment and methods of teaching. On the other hand, if the medical college insists on high standards of preliminary education, it will aid and stimulate the work of the secondary school, college and university.

13. As already stated, there is much confusion in the standards of our secondary schools. To place the proper value on preliminary credentials, therefore, and to judge of a student's qualifications, requires expert knowledge which is not at present available for our medical schools. The provision for certificates from county superintendents or high school principals has proved to be very unsatisfactory. A number of eastern colleges and universities have solved the problem by requiring that their examinations be held by the College Entrance Examining Board. It might be possible at least for the eastern medical schools to have the preliminary credentials of their medical students pass through the hands of that board.

14. There are a number of medical schools known as medical departments of universities which in point of fact have only nominal connection with such universities. In a few instances there is no real university of the name given, or else the university is made up of schools of medicine, law, dentistry and pharmacy without a liberal arts' department. The majority of these are really independent medical schools, the university so called having no control over the standards of teaching, nor furnishing any financial assistance to its "medical department."

15. A medical school would be greatly benefited by becoming the organic medical department of a university which has a strong liberal arts' department. By "organic" is meant where the medical school and its finances are controlled by the university trustees and where the educational standards are fixed by the liberal arts' department. By such connections, made within recent years, it has been most interesting to watch the transformation of what might better be termed "medical institutions" into, what are in every sense of the term, "medical colleges."

16. Those medical schools which are honestly striving to teach medicine and which have the right ideals should receive endowment. It has been clearly demonstrated time and again that no medical school can demand the necessary entrance requirements, provide the expert all-time salaried instructors, install the thoroughly equipped laboratories and properly supervise the dispensary and hospital teaching without private endowment or state aid. Additional figures have been received during the past year showing that the cost of teaching a student in each of the freshman and sophomore years in the 25 or 30 leading medical schools ranges from $250 to $700 or more per year, while the tuition received from each student ranges only from $65 to $250 per year. To meet the necessary expenses of properly teaching medicine from students' fees is therefore clearly out of the question.

17. After all that has been said in the last four or five years regarding the needs of modern medicine in money, salaried instructors, laboratories and hospitals, there are still a considerable number of colleges which, from students' fees, are able to pay all expenses and still have a snug little sum at the end of the year to "divide up" among the members of the faculty. And strange as it may seem, it is from these very colleges that we oftenest hear the plea for "the poor boy who wants to get an education" as an excuse for low preliminary requirements, and the question as to "who will practice at the country cross-roads and the back-woods districts" if a thorough medical training is insisted on.

18. There are several medical schools so called which are little else than quiz classes and which are run only to prepare their students to pass state license examinations. Inspection shows they seriously lack equipment or make little use of what they have. Statistics show that "graduates" of these schools are able to pass the state license examinations, as they are now generally conducted, when graduates of better equipped colleges fail. This is an argument for the practical state license examination.

STATE LICENSE LEGISLATION AND REQUIREMENTS

Since a year ago several important changes have been made in medical practice acts or in board rulings governing the requirements for license to practice medicine.

1. The Ohio State Board, at its June, 1907, meeting, inaugurated practical examinations. Each applicant was called on by number during the written examination, in the presence of the entire class, to identify pathologic specimens and bacteria and to make a urine analysis. An extension of time equal to that required for the practical test was granted to those who were called from their written work. It required about 50 minutes for each of the 161 applicants to complete the examination, and the results were reported to be highly satisfactory. Massachusetts has added practical examinations.

2. Rhode Island secured an amendment to the medical practice act requiring that each applicant for license must be "a graduate of a reputable medical college." This provides that no more non-graduates can secure license and also gives the board the right to refuse recognition to medical colleges which it considers not reputable. There remain only five states which still allow non-graduates to secure a license other than through reciprocity. These states are as follows:

Alabama	Massachusetts	Tennessee
Arkansas	Mississippi	

3. Indiana has provided for an examination in the fundamental medical branches at the end of the sophomore year, this credit to be acceptable toward the examination for license after the four years in a medical college have been completed and the diploma conferred. This makes six states which at the present time have provided for the license examination in two parts. These states are:

Colorado	Maryland	New York
Indiana	Michigan	Virginia

4. In only one instance during the past four years has a state retrograded in its standards for medical licensure. This occurred during the last year in Oklahoma. A bill for a strong practice act was introduced, but was so sadly riddled by the time it came through the Oklahoma legislature that it provides lower standards than were formerly enforced in the territory of Oklahoma.

5. In four states during the past year recognition was withdrawn from a number of medical colleges. In Indiana from one college which has been closed, in Illinois from five, to all of which recognition has since been restored, in Missouri from two, to one of which recognition has been restored, and in Texas from two, both of which have been closed. In several

other states, while recognition was not withdrawn from colleges, considerable pressure has been exerted by the boards resulting in marked changes for the better.

CHARTERING OF COLLEGES

In only a few states is there any check on the incorporation or chartering of medical schools. In most states any body of men by paying the required fee can incorporate as a college or university, often with authority to grant any degree under the sun, no question being asked as to the ability to furnish education of the standard generally supplied by the better colleges and universities. And seldom is there any means of control over such institutions, even after they are incorporated.

MEDICAL SECTS

No such unchecked educational institutions are allowed to exist, so far as we have been able to learn, in any other country, and in no other country do medical sects abound as in this country. Besides the three or four legally recognized schools of medicine, we now have some 30 or more nondescript fads in a long procession, demanding legal recognition and representation on examining boards.

FENCES WITH HOLES IN THEM

The trouble to-day in our medical practice acts is that our legislatures make the fences high and strong, but then proceed by granting special privileges to this or that sect, to make large holes in these fences, through which many untrained pseudo-doctors are annually admitted to practice on an unknowing and unsuspecting public.

THE LOGICAL REMEDY

The only logical position to take in the matter is, as has been done in a few states, to fix an educational standard by which all who wish to secure the license to practice medicine must comply. This standard should require a fair amount of preliminary education, which should be at least that of a four-year high school course, and a thorough training of at least four years in a medical school, the first two years of which should be devoted largely to laboratory courses in the fundamental medical sciences, anatomy, physiology, pharmacology, pathology and the like, a knowledge of which is absolutely essential to one who is to differentiate between health and disease. The last two years should be largely spent in the hospital and dispensary, in personal contact with the sick and injured, and should include a thorough training in the clinical laboratory. If this standard is complied with, then grant a physician's license and let the holder practice as his educated common sense dictates.

RECIPROCITY

Reciprocity, if wisely administered, is a commendable measure and a matter of justice to the old practitioner, who for good reason may be compelled to move to another state. Misunderstood, however, or poorly administered, it may seriously lower medical standards. It is still quite widely understood, even among state board members, that if one state has reciprocity with another it means that any doctor licensed by the one state must be accepted by the other, no matter how low the applicant's preliminary training was or from what college he may have graduated. Of course, that idea is entirely wrong, since reciprocity provides that the license from another state may be accepted in lieu only of the written examination. In all other respects the applicant should comply with the standard required by the law of the state in which he is trying to secure license, which standards it is the duty of the licensing board to enforce.

As usually provided in the state practice acts, reciprocity is a discretionary measure, licenses under that measure to be granted only when the board is satisfied that the applicant in every way comes up to the standard fixed by the practice act. It sometimes occurs that an applicant who has failed repeatedly before one board goes elsewhere and passes, then reapplies to the first board for a license through reciprocity. Several boards under such circumstances have very properly refused to issue licenses, and have demanded that such applicants pass their own examinations. Another board, that of Louisiana, has recently published a list of medical colleges which are considered satisfactory, and has barred graduates of all other schools from registration through reciprocity. Such procedure by the boards makes reciprocity in their hands a powerful influence for higher standards.

ADVANCES OF THE PAST YEAR

From the several advances mentioned, and doubtless others should be included, it will be seen that improvements in medical education in this country are being rapidly brought about. The following sentences will briefly indicate some of the advances made during the past year:

(a) Several state legislatures have made large appropriations for the opening of good high schools, and several organizations are actively working for the standardization of our secondary schools, colleges and universities.

(b) Twenty-nine medical schools by 1910 will be requiring two or more years of liberal arts' college work for admission.

(c) At least 50 medical schools by 1910 will be requiring one or more years of liberal arts' college work for admission.

(d) Practically all of the medical schools referred to expect to require preliminary work in college physics, chemistry and biology, and a reading knowledge of German or French.

(e) Six State Medical Examining Boards have increased their requirements of preliminary education to one or two years of work in a college of liberal arts.

(f) Five important mergers have been completed during the year, replacing nine medical colleges by four stronger ones.

(g) Teaching medicine at night has been abandoned by three medical schools, and only four remain, three of these being at Chicago and one at St. Louis.

(h) Practical examinations in addition to the written have been inaugurated by at least two examining boards: those of Ohio and Massachusetts.

(i) One more state now requires that all applicants be graduates in medicine, leaving only five which license nongraduates.

(j) Six state boards have provided for a two-part examination, whereby applicants may take examinations in some of the subjects at the end of their sophomore year.

LOOKING AHEAD

While much remains to be accomplished, many of the problems are now more clearly defined and rapidly approaching a satisfactory solution. Several strong forces are at work at these problems, including the state examining boards and their confederations, the medical colleges and their associations, the American Academy of Medicine and others. Each organization is doing a work which can not be done by the others. Sometimes the efforts overlap, but should not be allowed to conflict. There is certainly enough work for all, and they are all striving toward the same ideal, namely, the improvement of medical standards in the United States, until they are at least equal to those of our neighbors across the Atlantic.

(*To be continued*)

Medical Education and Nostrums, Ninth Letter

This is the ninth of a series of letters issued jointly by the Council on Medical Education and the Committee on Medical Teaching of the Council on Pharmacy and Chemistry:

To Medical Teachers.—This letter contains some suggestions for the departments of pathology, bacteriology, state medicine and Medical economics. *Pathology.*—The study of many pathologic conditions demonstrates clearly that these can not be cured directly by any drug, and this is the proper place for emphasizing not only the absurdity but the danger of nostrums for which such cures are claimed. The so-called cancer cures form a most striking object-lesson, of which the rheumatic, gout and Bright's disease cures are but minor variations.

Bacteriology.—The undoubted usefulness of antiseptics has been perverted by manufacturers until it may be questioned whether the proprietary antiseptics are not doing more harm than good. The public, as well as the profession, should be educated to effective protection against bacterial infection. The injudicious advertisement of proprietary antiseptics, however, may easily become harmful by inducing an unjustified sense of security, thus belittling the importance of the natural protective measures, such as cleanliness and isolation (see Phenol Sodique, THE JOURNAL, Nov. 9, 1907, p. 1617). Many are more directly dangerous, in that their poisonous nature is not sufficiently emphasized, or is even specifically denied, by the manufacturer. Others are advertised to accomplish results which are inherently impossible. Deodorants

have been praised as disinfectants. In many cases the cost per unit of efficiency causes an otherwise active antiseptic to be used in quantities so small as to render it useless.

State Medicine.—The profession, when it denounces self-medication, is commonly accused of self-interest. The student should be thoroughly informed of its true motives, and this department may well emphasize the dangers to the public health arising from the prevalent use of the confessed "patent medicines"; the evil effects of the constant suggestion of disease symptoms in the advertising matter; the neglect of curable conditions until they have become incurable; the uncontrolled use of remedies, such as digitalis, mercury, or arsenic, which, in unskilled hands, are more potent for ill than for good; the creation of drug habits; the disguising of the poisonous nature of nostrums tending to serious and even fatal acidents; the "sampling" of active poisons where they may be found by children, etc. This would also be a proper opportunity to emphasize the fact that the use and endorsement of proprietary articles by the profession is the strongest advertisement of these articles to the laity, and that the profession can not expect the laity to take effective measures against these evils until the profession sets a worthy example.

Medical Economics.—This department should expand on the articles on Nostrums (Section 8 of Chapter II) of the Principles of Medical Ethics. The student should be advised that secret remedies have ever been condemned by the best element of our profession, and that their use forfeits the respect of both the profession and the laity. The warning against testimonials should also be emphasized.

Section 8 of Chapter II of the Principles of Medical Ethics reads: "It is equally derogatory to professional character for physicians to hold patents for any surgical instruments or medicines; to accept rebates on prescriptions or surgical appliances; to assist unqualified persons to evade legal restrictions governing the practice of medicine; or to dispense, or promote the use of, secret medicines, for if such nostrums are of real efficacy, any concealment regarding them is inconsistent with beneficence and professional liberality, and if mystery alone gives them public notoriety, such craft implies either disgraceful ignorance or fraudulent avarice. It is highly reprehensible for physicians to give certificates attesting the efficacy of secret medicines, or other substances used therapeutically."

Society Proceedings

COMING MEETINGS

AMERICAN MEDICAL ASSOCIATION, ATLANTIC CITY, JUNE 8-11.

American Academy of Medicine, Atlantic City, June 5-7.
Am. Assn. of Genito-Urinary Surgeons, Pocona, Pa., May 31-June 1.
Am. Climatological Association, Fortress Monroe, Va., June 4-5.
American Dermatological Association, Philadelphia, June 3-5.
Am. Gastro-Enterological Association, Atlantic City, June 7-8.
American Gynecological Society, New York, May 27-29.
American Laryngological Association, Boston, May 31-June 2.
American Laryn., Rhin. and Otol. Society, Atlantic City, June 3-5.
American Medico-Psychological Assoc., Atlantic City, June 1-4.
American Neurological Association, New York, May 27-29.
American Orthopedic Association, Hartford, Conn., June 14-16.
American Pediatric Society, Lenox, Mass., May 27-28.
American Proctologic Society, Atlantic City, June 7-8.
American Surgical Association, Philadelphia, June 1-3.
American Therapeutic Society, New Haven, Conn., May 6-8.
American Urological Association, Atlantic City, June 7.
Arizona, Medical Association of, Prescott, May 19-20.
Arkansas, Medical Society of, Pine Bluff, May 18-21.
Association of American Physicians, Washington, D. C., May 11-12.
Con. of State and Prov. Bds. of No. Am., Washington, June 4-5.
Connecticut State Medical Society, Hartford, May 26-27.
Illinois, State Medical Society, Quincy, May 18-20.
Iowa, State Medical Society, Dubuque, May 19-21.
Kansas State Medical Society, Emporia, May 5-7.
Louisiana State Medical Society, New Orleans May 4-6.
Maine Medical Association, Portland, June 16-17.
Maryland, Med. and Chir. Faculty of, Baltimore, May 13-15.
Massachusetts Medical Society, Boston, June 15-16.
Missouri, State Medical Association, Jefferson City, May 18-20.
Montana State Medical Association, Missoula, May 12-13.
Nat. Assn. for Study and Prevention of Tuberculosis, Washington, D. C., May 13-15.
Nati. Con. State Med. Ex. and Licensing Bds., Atlantic City, June 7.
Nebraska, State Medical Association, Omaha, May 4-6.
New Hampshire, Medical Society, Concord, May 13-14.
New Jersey Medical Society, Cape May, June 23-25.
North Dakota, State Medical Association, Fargo, May 11-12.
Ohio, State Medical Association, Cincinnati, May 5-7.
Rhode Island Medical Society, Providence, June 4.
Texas State Medical Association, Galveston, May 11-13.
Wisconsin State Medical Society, Madison, June 30-July 2.

THE AMERICAN SOCIETY OF TROPICAL MEDICINE

Sixth Annual Meeting, held at the United States Naval Medical School, at Washington, D. C., April 10, 1909

Election of Officers

The following officers were elected for 1909-1910: President, Dr. William C. Gorgas, Ancon, Canal Zone; vice-presidents, Dr. William S. Thayer, Baltimore, and Dr. Rudolph Matas, New Orleans; treasurer, Dr. Charles Lincoln Furbush, Philadelphia; secretary, Dr. John M. Swan, Philadelphia; assistant secretary, Dr. Edward R. Stitt, Washington; councilors (to serve two years), Dr. Ramon Guiteras, New York, Dr. James Ewing, New York.

Dr. William S. Thayer, Baltimore, and Dr. James M. Anders, Philadelphia, were elected delegates to the International Society of Tropical Medicine.

Malaria, with Especial Reference to What Is Not Malarial Fever

DR. JOHN PELHAM BATES, Nashville, Tenn., presented a clear and exhaustive paper on this subject, and drew the following conclusions: Malaria is an extremely simple disease, unless complications are present. In true malaria (with the patient at perfect rest), quinin will control all symptoms within five days. If not, death will be so prompt that there will be no time to hesitate over the diagnosis. It is important to remember the large number of infections that may be present along with an acute malarial infection. Lack of knowledge of this fact, accounts for the confusion in our ideas with regard to the course of malaria and its non-amenability, in exceptional instances, to treatment. Finding malarial parasites in the blood is not the end, but the beginning of the diagnosis. When quinin fails to have a marked effect on the fever within from forty-eight to sixty hours, although parasites may be present, there is some complication; and when the fever is once reduced by quinin and there is again a rise of fever, the second rise is not due to malarial infection, but to an intercurrent infection manifesting itself late in the attack. In the presence of a marked leucocytosis, the idea of malarial infection should be abandoned, and search should be made for the real cause.

Report of a Case of Quartan and of One of Estivoautumnal Malaria

DR. JOHN M. SWAN, Philadelphia: The case of quartan infection was accidentally discovered in a patient admitted to the hospital for nephritis. The man had recently landed from Jamaica. His blood was studied, and found to contain a single generation of quartan parasites. He had no chill, but his temperature was 99.4 F. at 8 a. m. on October 9. Seventy-two hours later the temperature was 100.4 F., without chill; at the next seventy-two hour period there was a chill, the temperature reaching 101.4 F. The nephritis was independent of the malarial infection. The return of the dropsy, with chest pain, chills, cough and blood-tinged expectoration was unaccompanied by the recurrence of the sporulating parasites in the peripheral blood, and examination of bone marrow after death failed to show malarial pigmentation. The second patient, a male, was admitted to the Polyclinic Hospital, complaining of hiccough. He had an intermittent temperature. No suspicion of malarial infection was entertained; but at autopsy the very large spleen suggested the nature of the disturbance, and smears made from the expressed spleen-pulp showed a large number of pigmented macrophages and a fair number of deformed and partly degenerated parasites. The lung seemed to be affected by hypostatic congestion. On histologic examination a pneumonic consolidation was seen. The exudate was not that of a true pneumococcus infection.

A Study of the Leucocytes in Tropical Malarial Infections

DR. PAUL T. TALBOT, New Orleans: In the cases studied, the condition had been termed "tropical anemia." The patients all gave a history of ague; with relative white blood count, which showed an increase of the small lymphocytes, with an erratic form of plasmodium. A great amount of

physical depression existed. Every blood disease has its own picture; and it is possible that there is some change in the leucocytes, not yet determined, that represents a certain organism or toxin. Ordinarily, the leucocyte count is a valuable aid in the diagnosis; these cases, however, showed the relative increase in the lymphocytes in the small, rather than in the large varieties. Sometimes the plasmodium was that of an estivoautumnal form. I concluded, therefore, that I was dealing with a different toxin, produced by a different parasite.

Discussion on Malaria

DR. W. S. THAYER, Baltimore: I was surprised that Dr. Bates should have stated that malarial parasites were not found in any greater number in the internal organs than in the peripheral blood. Not infrequently a moderate number of parasites is found in the peripheral circulation and an enormous number in the internal organs. There are occasionally cases of malarial fever in which no parasites can be found in the peripheral circulation, even with the most careful staining. I have seen cases in which tuberculosis exactly simulated malaria, but in which the blood showed no parasites. I have likewise encountered trichiniasis resembling malaria most markedly. The paroxysms were like those of estivoautumnal infection.

DR. C. G. BASS, New Orleans: I have seen a case similar to Dr. Swan's. After the patient had been in the ward three or four days, twenty grains of quinin were given to him by mistake. It was immediately stopped, when discovered. The plasmodia were absent the next day; and from that on, until a month and a half later. He had previously shown three crops of parasites. He died two months later, and at postmortem tuberculous peritonitis was disclosed. In a second case of quartan malaria the patient died within a short time after treatment, and showed markedly few evidences of malaria at the autopsy.

DR. W. S. THAYER, Baltimore: I saw a case of the obstinate type of quartan malaria in a man who had consulted Dr. Osler on account of recurrent chills. Dr. Osler did not think it one of malaria, but I examined the blood and found quartan parasites.

DR. C. G. BASS, New Orleans: In another case of quartan malaria, the patient showed an enlarged spleen and a triple infection, with three crops of parasites. At the end of three days the disease had yielded to quinin, but he was kept in the ward ten days more. The pathologist at the Charity Hospital thought he could recognize a different type of plasmodia in patients coming from Honduras, and has named it the Honduran malarial parasite.

DR. GEORGE DOCK, New Orleans: The old English idea of the greater severity and obstinacy of quartan malaria does not always hold good. An enormous number of parasites was found in Dr. Bass' second case, yet the patient had had practically no symptoms. In regard to the distribution of the parasites in the blood, the circulation does not go on as in a series of tubes without any outlet. In one case I was unable to find parasites in the circulating blood, yet found quantities on puncturing the spleen. I agree with Dr. Bates that most cases of malaria can be checked in forty-eight hours, and believe Dr. Osler's limit of five days to be too long. The microscope should be used, and, if necessary, the spleen punctured.

DR. O. T. LOGAN, Chingteh, China: In the case of the patient who recovered, mentioned by Dr. Bass, I think the recovery explained by the fact that our forefathers recovered from malaria before the discovery of quinin. In China several persons have come under my observation who did not believe in taking medicine. By simply remaining in bed they eventually recovered.

DR. W. P. CHAMBERLAIN, Jackson Barracks, La.: In studying malaria, I have found four patients who resisted the administration of quinin by mouth for four days, the rest yielding promptly to treatment.

(To be continued)

TENNESSEE STATE MEDICAL ASSOCIATION

Seventy-sixth Annual Meeting, held at Nashville, April 13-15, 1909

(Concluded from page 1351)

President's Address: Hippocrates, Past, Present and Future

DR. B. D. BOSWORTH, Knoxville, among other things, said that just sixty years ago came Morton, with ether anesthesia, and, a moment later, Oliver Wendell Holmes, with his clean-handed midwifery. All future years will hold in honored reverence such names as Sims and Sayre, Gross and Flint, Drake and Senn, and, last but not least, our own beloved Richard Douglas. Have we not withstood the ravages and decay of the inveterate ages? Is not our fame already blazing in letters of fire upon the pages of history? Have we not piled achievement on achievement mountain high, until the welkin rings with praise? Have we not reduced the mortality of typhoid fever to 2 per cent., and its average duration to fourteen days? Have we not sounded the death knell of the Klebs-Loeffler bacillus, and many others, with antitoxin and serotherapy? Yellow fever, as a slimy serpent, has been driven back to her pestilential swamps to perish amid her own pollutions, and our nation thus enabled to triump over all the principalities of the earth in the assured success of her momentous undertaking to connect two oceans by means of the Panama Canal. Have not our surgeons and gynecologists attained a degree of knowledge and skill little short of the supernatural?

We live in an age of great possibilities, perhaps the greatest the world has ever known.

Cancer of the Breast

DR. GEORGE R. WEST, Chattanooga: The *x*-ray is unsatisfactory in the treatment of deep-seated cancer. The serum treatment is uncertain. These are simply will-o'-the-wisp methods which defer cases until too late for radical operative procedures to be undertaken. There is no palliative means for the cure of cancer, and cancer of the breast is so located that it can be early and thoroughly removed and the patient positively cured by operative procedure; it is unnecessary and unscientific to wait, when the diagnosis is positive, before we advise surgical interference.

DISCUSSION

DR. CHARLES P. MCNABB, Knoxville: I wish to call attention to a series of experiments that were conducted by Moore, of England, in reference to cancer occurring in other parts of the body than the stomach. It occurs in 65 per cent. of the cases. These experiments show a greatly diminished amount of hydrochloric acid in the stomach in cases of cancer occurring in other parts of the body than the stomach.

DR. J. A. WITHERSPOON, Nashville: I have found that the old idea that hydrochloric acid is completely absent in gastric cancer, and that lactic acid alone is present, is an error. I have investigated cases and found not only traces of hydrochloric acid in the stomach, but sufficient to have carried on partial digestion, so that I do not believe that the old teaching of text-books in reference to complete absence of hydrochlorid acid in cases of gastric cancer is correct.

DR. WILLIAM LITTERER, Nashvule: Dr. Witherspoon is correct in stating that hydrochloric acid is not necessarily absent in gastric cancer. Pernicious anemia will give the same condition. Cancer in other parts of the body than the stomach will cause diminution of hydrochloric acid, sometimes a complete absence, with the presence of lactic acid to such an extent as we find in gastric carcinoma. In gastric sarcoma there is almost the same clinical picture as in gastric carcinoma.

Amebic Dysentery and Appendicostomy

DR. JOHN PELHAM BATES, Nashville: Amebic dysentery is not an uncommon disease in the southern portion of the United States. The amebas are probably a secondary or accidental infection on a primary inflammation present in the large intestine; that is, as long as the mucous membrane is normal the amebas can not find lodgment. In this paper I review the pathology of amebic dysentery, its complications and sequelæ. In treatment, the best results are obtained by

irrigation with normal salt solution and followed by quinin injections from 1 to 3,000 to 1 to 1,500. There should be absolute rest and a milk diet. Bismuth is harmful in amebic dysentery, in that it covers over the ulcers, making it impossible to clean them or to reach the amebas by irrigation. Of 12 patients treated by appendicostomy 6 died; 3 patients who recovered were lost sight of, and 3 returned to the hospital with recurrent amebic dysentery. Appendicostomy is not to be advised until it is clear that palliative treatment is found to be of no avail. A large percentage of the cases treated by appendicostomy will recur.

DISCUSSION

DR. ROBERT CALDWELL, Nashville: I do not think we can treat this disease by rectal irrigations satisfactorily. Amebic dysentery, like all other diseases, varies, in that some cases are mild, and the patients recover practically without any treatment, while others are more intractable from the outset. Each patient must be treated individually. Granting that we can irrigate the cecum by rectal irrigation, I doubt if we can do so successfully; it must necessarily be imperfectly done. We should not wait until the patient is nearly moribund before doing appendicostomy. A timely appendicostomy will greatly relieve, if not cure, a number of these patients.

DR. FENTON B. TURCK, Chicago: It is impossible to reach and get rid of all the amebas by the use of any chemical agents. The amebas are carriers of bacteria, and experimentally it has been impossible to exclude bacteria which are taken up by the amebas, and carried into tissues and there produce their effect in ulceration and even perforation in some cases.

DR. A. B. COOKE, Nashville: Dr. Bates reports a series of 12 appendicostomies, with 6 deaths, and 50 per cent. of recurrences in those who survive. Those who have done a considerable number of appendicostomies in other portions of the United States, eliminating for the moment the results obtained in the Canal Zone, have an operative mortality of zero from this operation. I have talked with various men who have done this operation many times, and have not known any one of them to report a single death from the operation. The fact that these patients die from the operation is because they are reserved for it until they are practically dead.

DR. RICHARD BARR, Nashville: To speak of appendicostomy as a method of treament of dysentery is an absurdity. Appendicostomy is no treatment in itself. It is the making of an opening for treatment. Appendicostomy is simpler than appendectomy. It is necessary to resort to other measures of treatment after appendicostomy to get results.

DR. J. A. WITHERSPOON, Nashville: I believe that if general practitioners would examine the fecal discharges or the mucus from all cases of chronic diarrhea, wherein blood is seen in the stools, a very large percentage of them would be found to belong to this type of dysentery. I feel that the majority of these patients can be treated as well by irrigation in the old-fashioned way as by appendicostomy. We have no assurance, after appendicostomy has been done, that the patient will not have a relapse or recurrence, as they do by the old method.

Membranous Croup

DR. G. E. VAUGHAN, Clarksville: The name membranous croup is misleading, from the fact that it fails to indicate the true character of the disease, and has no reference to its cause, which is generally admitted to be the Klebs-Loeffler bacillus. Simple diphtheria, or, to be more specific, diphtheritic laryngitis, would be a more appropriate name. It is important to make the diagnosis early in membranous croup, as the administration of antitoxin to be most effective should be given early, within the first forty-eight hours, and in large doses, say from 4,000 to 5,000 units. If dyspnea should continue, intubation or tracheotomy should be done. By following these methods membranous croup will be robbed of its mortality to a great extent. Except for the fact that men with extensive experience with children say that only very rarely is it necessary to intubate in acute catarrhal laryngitis, and also from the fact that membranous croup yields so readily to antitoxin, I would be constrained to believe that cases reported have been instances of acute catarrhal laryngitis, but I am compelled to believe they were cases of laryngeal diphtheria or membranous croup.

Physiologic Laws Governing the Action of Purgatives

DR. GEORGE E. PETTEY, Memphis: The sympathetic nerve centers control the secretory and motor activity of the intestinal canal. Disease impairs the activity of these centers, resulting in deficient secretion and motion. To arouse these functions four modes of procedure are available. These are chemical, mechanical, electrical and physiologic stimulation. Two of these are direct, two indirect or reflex. Direct stimulation arouses all the cells in the centers to action, indirect stimulation, only a part. Reflex response to local irritation is local and only affects the structures from which the irritant impression came. The same law governs the generation and transmission of sympathetic motor impulses that govern the circulation of the blood. Local irritation begets local motion only. Chemical stimulation, which is necessarily local, is an unreliable and inefficient means of arousing motor activity of the intestinal canal. It reaches with great difficulty all the structures from which motor response is desired. Direct stimulation is much more efficient and dependable.

Leukemia, with Report of a Case

DR. R. J. MCFALL, Cumberland City: Leukemia is an affection of the spleen, bone marrow, or lymphatics, with a persistent increase of leucocytes. There are two main types, namely, splenomedullary and lymphatic. We know not the conditions under which it develops. None are exempt. The affection is most often observed in males. There are dropsy, polyemia and blood clots in the heart and veins. In the former the spleen is greatly enlarged, adherent to the stomach wall, diaphragm or stomach. The marrow is involved. In the lymphatic variety there is a general enlargement of these glands; also of the liver at times. The lungs are usually unchanged. In the kidneys the reverse obtains. The onset is slow. There is enlargement of the stomach, shortness of breath, enlarged glands, pallor or palpitation, which may cause the patient to seek relief. There is usually anemia, hemorrhage, nausea, vomiting, diarrnea. The pulse is rapid, soft; cardiac and nervous symptoms are rare. There is an excess of uric acid. There is often priapism. Fever is slight. A certain diagnosis can only be made by the microscope. Occasionally recovery takes place.

DISCUSSION

DR. BATTLE MALONE, Memphis: The first thing we should do, when we see a case of splenomegaly, is to have a blood count made, and usually a blood count is all that is necessary to make a diagnosis. I do not think we are ever justified in considering or in doing an operation in a case of enlarged spleen until we have the blood count before us. In a case of splenomedullary leukemia any operative procedure is absolutely contraindicated, as the mortality from operations in these cases is about 99 per cent. Some of the other types of enlarged spleen should be operated on, as, for instance, malarial hypertrophied spleen. In the majority of these cases, or in over 80 per cent., the patients, when operated on, recover.

DR. W. S. LAWRENCE, Memphis: In the treatment of splenomedullary leukemia the Roentgen ray gives brilliant results. It is one treatment which should be tried before any other.

DR. WILLIAM LITTERER, Nashville: I have seen several cases in which marvelous results, although not curative, were obtained by the use of the *x*-ray.

DR. J. HUGH CARTER, Memphis: The first essential in leukemia is to make a diagnosis, and after it is made we can pursue one of two courses, namely, medical or surgical treatment, according to the nature and type of the case.

DR. R. J. MCFALL: I have had no experience with the *x*-ray. I find, however, that there is as much evidence against it as there is for it. According to the mortality reports, these patients die shortly after the use of the *x*-ray the same as from other methods of treatment.

Appendicitis

DR. J. HUGH CARTER, Memphis: All agree that in the acute or non-suppurative form we should operate at once. In the suppurative form each case is a law unto itself, and must be treated accordingly. There is no rule which we can apply to all classes of cases. In the acute gangrenous or ulcerative form, if the patient is seen in the first four or six hours, operate at once; if not, treat by the expectant plan, or the Ochsner treatment. After an abcess has formed, open and drain without removing the appendix, unless the appendix can be found easily, then only ligate and drain. With a retro-appendiceal abscess causing obstruction, the appendix should be removed, and a counter drain used. In all cases do not flush out the abdominal cavity, but wipe out with wet gauze sponges. We should only use drainage when we know pus is in the cavity. After all, it means good judgment when we have entered the abdominal cavity.

Intestinal Obstruction

DR. J. W. BRANDAU, Clarksville: Strangulation is the most frequent cause of acute intestinal obstruction, and may be due to bands or cords, the result of peritoneal adhesions, which may be found in any part of the abdominal cavity. Intussusception is the rolling of one portion of the bowel into the lumen of another. A patient having undoubted intestinal obstruction, and who is not relieved by a full dose of castor oil, or other simple but efficient laxative, with the aid of a large enema given in the knee-chest position, should at the earliest possible moment be given the benefit of surgical procedure. No physician would recommend the administration of purgatives or the prolonged use of enemata in a case of strangulated hernia. The mortality increases as operation is postponed, as is shown by the following table by Sargent, quoted by Moynihan: Operated on first day, mortality 37 per cent.; operated on second day, 39 per cent.; operated on third day, 61 per cent.; operated on fourth day, 67 per cent.; operated on fifth day, 73 per cent., and operated on sixth day, 75 per cent. The experience of all operators coincides with this, and the imperative necessity of early diagnosis and early operations are universally admitted. A mortality of over 10 per cent. is the mortality of delay.

DISCUSSION

DR. JOHN A. GAINES, Nashville: Early diagnosis and operation are the most important features in dealing with intestinal obstruction. Any obstruction coming up measurably acutely, in the absence of fever, or associated with symptoms of shock, depression, subnormal temperature, and local tenderness, can be separated distinctly from inflammatory conditions arising from appendiceal and other acute inflammatory conditions. All these conditions, in which we are able to exclude fecal impaction, are surgical from the beginning.

DR. L. E. BURCH, Nashville: If we are in doubt as to the diagnosis of intestinal obstruction, the most important thing is not to give a purgative. This not only applies to intestinal obstruction, but to any lesion within the abdomen. If we are in doubt whether a patient has intestinal obstruction, ruptured appendix, or a beginning peritonitis from a leaking pus tube, we should not give anything by the mouth. Put the patient in the Fowler position, or elevate the bed, give enemas, and the best enema to use is the drip enema of Murphy. Avoid all food and all water, and, above all things, avoid morphin. Take the mechanical form of intestinal obstruction, which only comprises 28 per cent. of the cases, and in every case an immediate operation is demanded.

DR. JERE L. CROOK, Jackson: It is not easy to make an exact diagnosis in a case of mechanical obstruction of the bowel, whether due to a band or to the presence of some foreign body, and in those cases in which we are in doubt it is better to make an exploratory incision.

DR. CHARLES P. MCNABB, Knoxville, related a case of spontaneous cure of intestinal obstruction.

A Comparison of the Various Tuberculin Tests in the Early Diagnosis of Tuberculosis

DR. WILLIAM LITTERER, Nashville, after discussing the preparation of tuberculin, Koch's old tuberculin, tuberculin precipitate, the subcutaneous test, method of administration, the reaction, the von Pirquet cutaneous reaction, etc., drew the following conclusions:

1. The different results obtained by different workers depend on the employment of solutions of varying strengths as well as defective technic in their preparation.
2. In the conjunctival test, if proper technic, proper preparations be used, and the proper selection of cases is made, there is practically no danger in its employment.
3. In pyrexial cases the subcutaneous injections are not applicable, while the superficial tests can be used without affecting their diagnostic value.
4. Cases without symptoms which react should be regarded as a danger signal and not a condition demanding active treatment.
5. It is generally believed that a delayed integumental test and a negative conjunctival reaction mean a healed tubercle. The superficial tests are valuable from the standpoint of prognosis of manifest tuberculosis. A negative or delayed reaction indicates a serious sign. A prompt and vigorous reaction points to a much more favorable prognosis. All the above signs, however, may fail.
6. The subcutaneous test is somewhat more reliable than the integumental and ocular tests. I am becoming more impressed with the Moro test than any of the newer ones.
7. To obtain the best results from tuberculin from a diagnostic standpoint, I would advise the use of the three superficial tests, namely, eye, cutaneous, ointment, be applied on the same patient at the same time, and if any doubt exists as to their interpretation, then follow it with the subcutaneous test.

Primary Malignant Tumors of the Osseous System

DR. W. A. BRYAN, Nashville: I believe that every case of sarcoma of bone demands at the very earliest period a total excision of that bone or amputation at the upper limit of the bone. The only exception I can see to this statement is in certain cases where it is considered ill-advised to amputate at the hip joint and when the patient's chances for recovery from the operation would be better if a lower amputation should be done, but we should always remember that the closer to the tumor we go, the greater the chance of recurrence. The other exception is in those cases in which the tumor appears in a bone that cannot be spared, and these, I think, are almost invariably hopeless, and I doubt seriously whether it is worth while to operate at all after the tumor is well developed. Three times within the last eight months I have removed sarcomata, the largest of which was smaller than a malaga grape, and none of them showed any evidences of malignancy. None of these was osteosarcoma, which is more difficult to recognize. It was only after incising the tumors that my suspicions were aroused as to their malignancy, and the suspicion was confirmed in each instance by a microscopic examination. One of them was a small nodule in the testicle, found accidentally while I was operating for another condition. The patient's physician had suspected the presence of sarcoma and told me so. In the second case a small knot on the leg not larger than a bean was removed and was found to be a fibroid tumor, on the inside of which there were sarcomatous cells. The third one I removed from the lobule of the ear. It was slightly smaller than a grape, and proved to be sarcoma. The point I wish to emphasize is that the suspicion of the medical profession should be aroused when a tumor is seen, and that tumor should be removed on general principles before it has had any opportunity to cause any mischief. Furthermore, I wish to lay stress on the point that sarcoma is not nearly so rare a condition when the microscope is called to our aid as many of us imagine.

Inoperable Tumors Successfully Treated by the X-Ray

DR. W. S. LAWRENCE, Memphis: I give considerable latitude to the term inoperable. First, it will cover those cases in which an operation would mean certain, or almost certain, death to the patient. Intrathoracic tumors serve as an example of this class of cases. Second, it is used to refer to those cases in which recurrence has taken place after one or more operations, and in which further operation is considered inadvisable. Third, it will mean those cases in which the site of the tumor is such as to render its surgical removal mutilating and disfiguring, and therefore extremely undesirable. Malignant growths about the eyelids, nose and mouth are examples. I have had cases coming under each of these heads. The first case was one of intrathoracic tumor. The second case began as an endothelioma of the external auditory meatus, but later involved most of the tissue of the outer ear and parotid gland. *X*-ray treatment was very beneficial in both of these cases.

Rational Drug Therapy

DR. E. R. ZEMP, Knoxville: Therapeutics is the keystone to the arch of medical science. It is the one branch to which all other branches must come for help. Many of its inefficiencies are due, not to the impotency of drugs, but to a failure to master its principles. Improper teaching and later neglect in its study are responsible for many of its shortcomings. Rational drug therapy is impossible without a knowledge of the physiologic action of drugs. The use of proprietaries continually makes us hopeless cripples; routine prescribing is no better, as in both we lose sight of the fact that it is the patient and not the disease that needs attention. Erroneous ideas concerning drugs are numerous. The therapeutic nihilist is as pitiful as the therapeutic egotist is ridiculous. After years of vain efforts to discover other therapeutic means better than our drugs a great revival wave is sweeping over the profession, and we who believe in them are coming into our own.

Indications for Surgical Intervention in Peptic Ulcer; Choice of Operation

DR. JOHN A. GAINES, Nashville: The classification of peptic ulcer therapeutically must needs be arbitrary, and subject in the early stages to conditions of more or less experimental tests, or dealing with accidents of greater gravity. The nonindurated ulcer is purely a medical disease, and only the occasional complications, as hemorrhage, if persistent, or perforation, make it a surgical disease. It is not possible to diagnose such an ulcer with any degree of accuracy at first, and when suspected a medicinal and dietetic regimen should be followed. All early ulcers should be regarded as medicinal for a reasonable time. I hold that any recognized ulcer not yielding to rest in bed, with proper medicinal and dietetic treatment in from six to eight weeks at most, should be considered as a surgical disease even without the development of accidents or threatening symptoms. The ideal surgical treatment is by gastrojejunostomy with or without dealing directly with the ulcer, as recommended by Mayo.

Lung Puncture as a Therapeutic Measure

DR. T. J. COBLE, Shelbyville: This line of treatment is indicated when we have a hypostatic condition or a hepatized lung following pneumonia, when there has been a faulty resolution and a failure on the part of Nature to clear up the lungs. It is especially indicated in an asthenic patient who is very weak and much debilitated. Puncture is preferable to blisters in these conditions; first, because it is more certain and much quicker, for the reason that this is a chronic or a subacute inflammation, and to hope to get resolution is by increasing the blood supply, or develop an acute inflammation out of the chronic, and thereby stimulate Nature to complete its work. Second, the puncture is practical, without pain, or danger to the patient. Third, with puncture the irritation is in the lung, the seat of the disease, and with the blister it is on the chest wall, and does not increase the blood supply where it is needed. Fourth, after the puncture of the lung, resolution usually takes place in from three to ten days, and the patient is relieved of the necessity of taking the nauseating absorbent mixtures that are usually prescribed.

Surgical Types of Abdominal Tuberculosis

DR. W. D. HAGGARD, Nashville: The intestines and pelvic organs are the strongholds of the disease. The duodenum and stomach are peculiarly immune. In 25 per cent. of cases the tuberculosis gains entrance through the intestinal mucosa. In children the intestines are most frequently affected, and in adults it occurs from uncooked milk and infected food. It is marked by griping pains, diarrhea, with blood, emaciation and tenderness. The ulcer often results in stenosis. Localized ulcers should be excised. Chronic obstruction requires surgical intervention. Ileocecal tuberculosis is the most frequent. Ulcerative and hyperplastic types are considered. Illustrative cases, with localized abscesses, are reported. Tuberculosis of the omentum and appendix adherent in a hernial sac are considered. Chronic peritonitis is usually tuberculous; it may be encysted. It usually comes from the Fallopian tubes, which should be excised. Mild cases with ascites are most favorable. Simple exploratory laparotomy often cures, but the focus of infection, whether in the tubes or appendix, should be removed. The ulcerative and fibrous types are extremely unfavorable. Abscess of mixed infection is almost hopeless. Epigastric tumor of the thickened omentum is characteristic of the chronic form of the disease. Tuberculin is an important diagnostic aid.

Cancer of the Stomach

DR. CHARLES P. MCNABB, Knoxville: In my paper I emphasize the following points: First, in rectal feeding we should arrange the enemata to get the greatest number of calories from the smallest number of cubic centimeters of enemata. Second, the colon will not tolerate rough usage, and more than 300 c.c. should never be given in one enema. Third, it takes not more than from four to seven days for acetonemia to develop, if less than 50 grams of carbohydrates are taken into the system daily, therefore, from 50 to 75 grams of starch and from 15 to 30 grams of grape sugar dissolved in 300 c.c. of water, or peptonized milk, must be given each 24 hours. Fourth, a patient with pyloric stenosis suffers much from thirst, and not less than 1,500 c.c. of water in some form should be injected every day. Fifth, the addition of common salt makes all kinds of enemata much more absorbable by the large intestines.

Other Papers Read

The following papers were also read:

"Intubation and Antitoxin Treatment in the Worst Forms of Laryngeal Diphtheria," by Dr. J. M. Troutt, Jackson; "The State Sanatorium in the Prevention and Cure of Tuberculosis," by Dr. Dora Lee Wilder, Knoxville; "Epidemic Cerebrospinal Meningitis," by Dr. J. Overton, Nashville; "Microscopic Findings in a Case of Coccidioidal Granuloma of the Meninges," by Dr. Newton Evans, Nashville; "The Extraction of the Opaque and Partially Opaque Lens in the Capsule," by Dr. L. B. Graddy, Nashville; "Treatment of Myocardial Insufficiency," by Dr. David R. Neil, Nashville; "Diagnosis and Treatment of Eczema," by Dr. J. M. King, Nashville; "Congenital Calculus in the Prostatic and Membranous Urethra of a Seven-Year-Old Boy," by Dr. W. D. Sumpter, Nashville;

AMERICAN ASSOCIATION OF PATHOLOGISTS AND BACTERIOLOGISTS

Ninth Annual Meeting, held in Boston, April 9-10, 1909

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A Postmortem Study of Status Lymphaticus in Adults and Children

DR. CHARLES NORRIS, New York, presented elaborate statistical tables dealing with the external appearances and internal findings in these cases.

Anaphylaxis

DRS. M. J. ROSENAU and JOHN F. ANDERSON, Washington, D. C.: No substance has been found of practical value in preventing anaphylaxis when given before serum injection. Different proteid substances are absolutely specific. Heat causes no appreciable loss of toxicity. The sensitizing and toxic principles are probably the same. Heat has practically no effect on sensitizing properties of substances. One guinea-pig was found susceptible 1,100 days after sensitizing, indicating that this condition exists during the remainder of the animal's life. Experiments now under way indicate that the toxicity of horse serum is increased by the addition of serum from sensitized pigs.

Neurophysiologic Effects of Anaphylactic Intoxication

DRS. F. P. GAY, E. E. SOUTHARD and J. G. FITZGERALD, Boston: These experiments were undertaken to determine the best line of histopathologic attack in testing the toxicity of serum. One of the points determined was that injections into the brain are not so toxic as those into the spaces surrounding the brain. An important point brought out is that supposititious antibodies are in the cells of the nervous system. Work in the future is to be along this line.

Attempts to Determine by the Reaction of Fixation Specific Racial Differences in Human Blood

DR. JOHN G. FITZGERALD, Boston, detailed experiments with the blood of Caucasians, Japanese and negroes. The results

do not warrant the assumption that reaction of the blood is sufficient to differentiate races of people. The forensic value of such proceeding is practically *nil*.

Localized Anaphylactic Intoxication in Human Beings Following Repeated Injections of Diphtheria Antitoxin at Short Intervals

DRS. W. P. LUCAS and F. P. GAY, Boston: Necrosis at the site of the first injection can be induced in animals by succeeding doses of serum. To determine the effect in human beings, the findings in 1,000 children in certain hospitals were tabulated. These children as a routine measure received 1,500 units of antitoxin on admission and at regular intervals as long as they stayed. Some in the list received as high as six doses. In the 1,000 first injections there were no local reactions and only three slight general.

Of 281 second injections, 26 reacted, 61 per cent. being local
Of 103 third injections, 15 reacted, 86 per cent. being local
Of 36 fourth injections, 13 reacted, 84 per cent. being local
Of 25 fifth injections, 12 reacted, 91 per cent. being local
Of 15 sixth injections, 11 reacted, 91 per cent. being local

This demonstrates an analogy between serum anaphylaxis in animals and serum diseases in human beings.

DISCUSSION

DR. JOHN F. ANDERSON, Washington, D. C.: Was straight horse serum used for the injections? In one series of 480 boys precipitated antitoxin, with 23 per cent. total solids, was employed in some cases and local reaction, even to a purple area the size of a saucer, developed in some of the subjects. This reaction might be due to the solids.

DR. GAY: Horse serum only was employed.

Specific Chemical Prevention and Treatment of Syphilis in Macacus Rhesus

DRS. SIMON FLEXNER and B. T. TERRY, New York: It is now comparatively easy to produce in monkeys the primary lesion of syphilis; but this can be prevented by local measures, such as the use of 2 or 3 grains of atoxyl. After a visible syphilid has appeared, such measure is also effective. These animals are not protected against subsequent inoculations, those in which the disease is arrested as late as fifteen days after the primary lesion is started being subject to further inoculation just as are normal animals. In other experiments, inoculated animals were subjected to treatment six months after the production of a lesion. Two drugs may be used, acetoatoxyl and a mercuric salt of atoxyl. The lesions in an animal yielded, partially at least, very quickly to acetoatoxyl. The effect was controlled by the serum test, the reaction being very slight after the first doses had been given. Recently the test has become positive, hence the animal is not yet fully cured. In an animal which survived two weeks after treatment by the mercuric salt of atoxyl, the lesions receded somewhat. This salt is extremely disagreeable to use because of the terrific reaction in the tissues induced by it. In addition to the local reaction there was also stomatitis and abscess of the parotid. This would probably make its use in man objectionable.

The Action of Soaps on the Pneumococcus

DRS. SIMON FLEXNER and R. V. LAMAR, New York: The object of these experiments was to determine if physically changing the pneumococcus will render it more subject to serolysis. It is subject to soap lysis, there being slight changes in outline after being thus treated. If equal quantities of treated and untreated cocci were injected into the peritoneal cavity of rats, all died. In the case of the treated cocci there was a greater emigration of leucocytes into the peritoneum but no more phagocytosis. There was no great change from these results when serum was added, but with antiserum and soap cocci, death did not occur. The physical state of the cocci appeared so altered by the soap that when antiserum was added, serolysis was more active. Experiments now under way indicate that this action may be accomplished by soap after cocci have come in contact with albuminous materials.

Amboceptors Concerned in Fixation of Complement and in Bactericidal Tests (*in Vitro*)

DR. JOHN C. TORREY, New York, detailed experiments made with the object of clearing up the obscurity due to the diversity of substances concerned in these processes.

Intravenous Injection of Heterologous Blood Serum

DRS. LEO LOEB, LUCIUS TUTTLE and A. STRICKLER, Philadelphia: Experiments made to determine what kills the animal in these cases indicate that dog serum kills by causing hemolysis, ox serum by agglutination.

Increased Bactericidal Activity of Phenol Solutions Due to the Addition of Sodium Chlorid

DRS. W. S. LEMON and J. S. LAIRD, Toronto: The results of a large series of tests indicate that within certain limits the effect of salts in solution is an osmotic one. A point to be emphasized is the use of a machine lift in measuring bacteria employed, the ordinary method of lifting them by hand being inaccurate.

A Probable Cause of Liquefaction of Gelatin in Preservation of Specimens by Kaiserling's Method

DISCUSSION

DR. LAWRENCE J. RHEA, Boston: In mounting specimens by this method, from 20 to 30 per cent. loss by liquefaction of the gelatin is the rule. Observation has shown that specimens of acute inflammatory conditions, as lobar pneumonia, are most often involved. In one specimen of carcinoma of the hand the gelatin was firm except immediately over the area of the tumor. As the presence of enzymes in inflammatory tissues have been shown by various observers, it was suggested that these enzymes might be responsible for the liquefaction of gelatin. To decide this, pieces of the tissue were incubated with gelatin and digestion occurred; gelatin alone did not undergo digestion. When formalin was added, digestion did not take place. Hence the liquefaction of gelatin is explained by the presence in the tissues of enzymes. Formalin may inhibit but does not destroy these enzymes.

Acute Hemorrhagic Pancreatitis Due to a Ball-Valve Calculus in the Opening of the Diverticulum of Vater

DR. J. J. MACKENZIE, Toronto: The specimen exhibited was obtained from a man of 54, who for three years had had attacks of gallstone colic and had passed gallstones from the bowel. At autopsy a gallstone was found in the ampulla, in a sac 2.5 cm. long. The border of the opening of the ampulla was very thin and firm, indicating that the passage of stones had injured the boundary of the valve.

Sporothrix (?) Isolated from Two Horses with Epizootic Lymphangitis

DRS. CALVIN G. PAGE and LANGDON FROTHINGHAM, Boston: The specimens shown were obtained from swabs or tissue taken from horses in western Pennsylvania, where, in 1907, there were cases of this affection which has been almost entirely confined to foreign countries. Clinically, the affection resembles glanders. The organism grows in the form of budding spores from the ends and sides of filaments. Rats and mice are susceptible to inoculation, rabbits and guinea-pigs are more resistant. A similar organism has been described by Hektoen and others. Cases have been called sporotrichosis but classification is not certain. From the findings in these cases it may be that sporotrichosis and epizootic lymphangitis are identical.

Case of Actinomycosis Improving Under Vaccine Treatment

DR. F. N. WHITTIER, Brunswick, Me.: A farmer of 26 developed a growth at the angle of the ribs on the left side. A specimen examined after operation contained yellow granules which under the microscope proved to be actinomyces. Cultures were grown aërobically on ordinary culture media and vaccine treatment was suggested. This was begun, though difficulty with the clumps was encountered in preparing the vaccine; they were finally ground. A dose of from 50 to 100 millions was used, malaise and slight rise of temperature fol-

lowing injection. The patient's opsonic index has risen from 0.58 to 1.34 and his weight from 136 to 166 pounds. A question as to the organism in the cultures being the same as that in the pus may arise, but from the appearance and the results I believe it is.

Treponema Pallidum in Syphilitic Aortitis

DR. J. H. WRIGHT, Boston, exhibited specimens from 3 cases in which the treponema was found in the wall of the aorta. In one case, large numbers were found immediately beneath the intima in necrotic tissue. In a second they were fairly numerous in the necrotic fibrous tissue of the intima, in the third they were very few and were found only after a long search. In morphology the organisms are identical with the treponema pallidum. Dr. Wright had found the treponema in about half the cases of suspected syphilitic aortitis. In only two of the cases was the time of the syphilitic infection known; in them it was sixteen years before the aortas were obtained.

A Study of Tubercle Bacilli in Milk and Feces

DR. V. A. MOORE and W. H. BOYNTON, Ithaca, N. Y.: Many conflicting statements have been made regarding the presence of tubercle bacilli in the milk and feces of cattle. Some say that 40 per cent. of infected cattle excrete the bacilli in their feces, others give a much lower percentage. In general, one would be led to believe from current literature that there is the possibility of the inferior grades of milk put on the market containing many tubercle bacilli. Two important questions arise: 1. How frequently are tubercle bacilli found in the milk from supposedly sound cattle? 2. What importance is to be attributed to these bacilli when found? We have examined (1) the mixed milk from herds in which all animals reacting to tuberculin had been removed, leaving therefore only apparently healthy cattle; (2) the milk from individual cows; (3) the feces from individual cows. The mixed milk of 47 different herds was examined. Of these the tubercle bacillus was found, microscopically, by the sedimentation method, in one sample. Guinea-pig inoculation revealed the bacillus in two others, or a total of 3 out of 47 samples. Of 87 samples from individual cows, no tubercle bacilli were found in 85. In the other two, the cows had hard "bunches" in their udders, though not supposed to be tuberculosis; in their milk were enormous numbers of tubercle bacilli. Hence in 134 examinations of milk, tubercle bacilli were found in 3 samples of mixed milk and in 2 of individual milk from cases of udder disease. Acid-fast organisms were found in 2 other samples but caused no disease in guinea-pigs. Of feces, 36 specimens were examined and none contained tubercle bacilli; acid-fast organisms were found in one or two but gave no results from guinea-pig inoculation. We conclude, therefore, that tubercle bacilli are not found in the feces of animals unless they possess open lesions. Tubercle bacilli are rarely in the milk of cows unless there are tuberculous lesions of the udder. There is no justification in the prevalent statements regarding the widespread occurrence of tubercle bacilli in the milk from cattle which show no evidence of disease.

DISCUSSION

DR. ROBERT N. WILLSON, Philadelphia, spoke of the frequency of tubercle bacilli in the feces of tuberculous men, 100 cases furnishing 100 positive results in one series. Guinea-pigs were inoculated and tubercle bacilli recovered from the feces.

DR. H. C. ERNST, Boston: I had occasion some time ago to investigate the question of tubercle bacilli in milk and found the percentage of positive results much larger than did Dr. Moore. In many instances the study of a large number of spreads are necessary for the detection of bacilli.

DR. JOHN F. ANDERSON, Washington: I had occasion to examine the milk from 104 dairies and found tubercle bacilli in 11 per cent. by guinea-pig inoculation.

An Experimental Study of the Relative Importance of Renal Injury, Vascular Injury, and Plethoric Hydremia in the Production of Edema

DR. R. M. PEARCE, New York: In these experiments, potassium chromate was used to act on the tubular epithelium of the kidney, the venom of the rattlesnake for damaging the endothelium of vessels, and water administered by the stomach to produce hydremia. When these three were employed, the animals developed universal edema. In none of the controls with one of these three elements lacking was edema produced. Vascular poisons other than venom, as ricin and arsenic, also sufficed to cause edema. The influence of nephrotoxic serum on animals suffering from chronic nephritis was investigated. Edema was produced oftener than in the control animals, but I do not not emphasize this because of other factors which must be taken into account.

Formation of Peritoneal Transudate

DRS. LEO LOEB AND M. S. FLEISHER, Philadelphia: In estimating the degree of edema it is better to employ a method by which the fluid can be measured. For this purpose the peritoneal cavity was used. The agents employed were calcium chlorid, adrenalin, heart lesions, and nephrectomy. Calcium chlorid was shown to act on the urine, the peritoneal transudate, and the intestinal fluid, diminishing the first and last and causing an increase of the second. The question as to how calcium chlorid acts on the blood vessels then arose, and further experiments showed that it acts directly on the kidney and not on blood pressure.

DISCUSSION

DR. W. T. COUNCILMAN, Boston: I have been studying cases of chloroform injury of the liver and have noticed that from two to four days after administration of the drug there is a marked increase of peritoneal exudate. This is unusual and the cause is obscure. It apparently is not due to hepatic obstruction.

The Action of Adrenalin on the Pancreas

DRS. C. W. EDMUNDS and A. S. WARTHIN, Ann Arbor: It appeared to us that Pemberton and Sweet, in their studies, lacked sufficient ground for excluding increase of blood pressure as the cause of inhibition of pancreatic secretion. Accordingly, experiments on dogs were made with nicotin, ergot and adrenalin by intravenous injection. The results were inhibition of the secretory ction of the pancreas. This indicates that there is nothing specific about the inhibitory action of adrenalin. The effect is due to constriction of the blood vessels, and any drug that accomplishes this result causes inhibition.

The Morphologic Changes in Nerve Cells from Overwork in Relation to Anemia and Surgical Shock

DR. D. H. DOLLEY, Chapel Hill, N. C.: Experiments were made on dogs, shock being produced by manipulation of peritoneal contents and anemia by ligation of vessels, etc. In the former, some were shocked until death (in about 3 hours), others were allowed to recover after from 30 to 50 minutes. Transfusion of blood was employed to maintain blood pressure during the shock. The Purkinje cells of the cerebellum showed the principal changes. There was first an increase, then a decrease of the chromatic material, the cells becoming relatively smaller in size. The chromatic substance of the karyosome was affected last, the final result being a cell absolutely devoid of chromatic material. Setting an arbitrary point at which recovery of the cell is believed impossible, an average of 33 per cent. was found damaged beyond this limit. Correlating these results with those found as the result of overwork, I agree with Hodge as to the shrinking of the cell and the wrinkling of the nucleus. The changes I believe represent the functional activity of the cell carried to its extreme limit.

DISCUSSION

DR. JAMES EWING, New York: I am not sure that the changes in shock and anemia are identical or that the Nissl bodies represent the functional activity of the cell. In 1898 I studied a case of complete anemia, due to thrombosis, which had lasted for a few hours, and found complete loss of the Nissl bodies. There was no evidence of excessive functional activity but there was entire loss of blood, hence anemia was the chief cause of the changes. Heat may also be used to bring about bleaching of nerve cells. Under these conditions some animals die, others recover. It is difficult to determine the degree of change that necessarily means non-survival.

DR. E. E. SOUTHARD, Boston: I have found similar changes in ganglion cells in brains showing encephalitis. A remarkable feature is the focal distribution of such cells, several often being found at one point. I am not sure of their meaning.

Quantitative Changes in Cast Excretion in Experimental Nephritis

DRS. E. C. C. COLE and J. J. MACKENZIE, Toronto: This study was made with rabbits. In one instance there was evidently hyaline cast formation from epithelium. A differential count of hyaline and granular casts showed that the latter predominated for 48 hours, then fell away and were replaced by hyaline casts. On the third day 600,000 casts were excreted in the 24 hours. On the twentieth day there were no casts and on the thirty-second day the animal was chloroformed and the kidney washed with saline solution, many casts being obtained. This showed that the longer hyaline casts remain in the kidney the more dense they become.

Lesions Produced in the Rat by a Typhoid-Like Organism (Danysz Virus)

DRS. F. B. MALLORY and T. ORDWAY, Boston: The early stages of typhoid lesions are difficult to obtain in human beings and with the typhoid bacillus lesions can not be produced in animals. By the use of the Danysz virus, however, analogous lesions were produced in rats. A large series of these were shown and all supported the previous statements based on human lesions, namely, that typhoid lesions in the intestine, glands, liver, etc., are due to proliferation of endothelial cells. The necroses in the liver are also due to collections of endothelial cells which later undergo necrosis. I have not abandoned that view that the liver necroses are due to thrombosis, but I can prove the endothelial origin of the areas. It may be that both processes are capable of producing necrosis.

An Experimental Study of Atrophy of the Pancreas

DRS. J. H. PRATT, THOMAS ORDWAY and H. MORRISON, Boston: The operation on the first dog consisted in separating the head of the pancreas from the duodenum, leaving only the artery and vein. The animal was kept alive six months and showed absolutely no atrophy of the pancreas or disturbance of metabolism. In a second trial, the head of the pancreas was separated and the omentum placed between it and the duodenum. The animal lost weight rapidly and when killed at the end of two months showed a small, firm pancreas that had decreased from 10 to 3 cm. in length. Microscopically, pancreatic tissue had almost entirely disappeared. No islands of Langerhans could be found. Another dog began to improve at the end of two months and now after four months is entirely well. Glycosuria did not develop in any of the cases.

Papers Also Read

The following papers were also read: "A New Anaerobic Spore-Bearing Bacillus from the Livers of Normal Dogs," by Drs. S. B. Wolbach and T. Saiki; "Sporulation in the Parasitic Ciliata," by Dr. E. L. Walker, Boston; "Autopsy Findings in Guinea-Pigs Inoculated with Semen from Tuberculous Subjects," by Dr. R. N. Willson, Philadelphia; "A Study of the Convoluted Tubules in a Secondary Contracted Kidney by the Born Wax-Plate Method," by Drs. L. Edward and J. J. Mackenzie, Toronto; "Studies in the Biology of Tumor Cells," by Drs. O. T. Schultz and W. T. Howard, Jr., Cleveland; "Demonstration of Specimens from a Case of Ophthalmia Nodosa," by Dr. H. S. Steensland, Syracuse, N. Y.; "A Modification of Culture Media Based on Physico-Chemical Considerations," by Dr. H. M. Adler, Boston.

Election of Officers

The following officers were elected for the ensuing year: President, Dr. F. B Mallory, Boston; vice-president, Dr. P. H. Hiss, New York; secretary, Dr. H. C. Ernst, Boston; treasurer, Dr. H. U. Williams, Buffalo.

The meeting in 1910 will be held in Washington, D. C.

Miscellany

The Work of Boards of Health

Dr. George A. Soper, in the *Popular Science Monthly*, March, 1909, considers the powers and relations of boards of health from a popular viewpoint. He notes the combination of legislative, executive, and, sometimes, judicial powers granted to such boards, and, while admitting that extensive authority may have been necessary in the emergencies created by epidemic diseases, he questions whether it would not be wise, in view of the extension of the field of operation of health authorities, to limit their powers. Another anomaly in our system is that the highest health authority is the state to which the municipalities are related, but there is no national health board to correlate the action of the various states.

The duties of boards of health may be defined as the collection of vital statistics, the suppression of communicable diseases, the abatement of nuisances, and the education of the people in health matters. It may properly be asked what are to be considered nuisances. There is danger that the health board may occupy itself with inconveniences of a semi-esthetic nature to the neglect of matters of more serious importance in relation to health. Dr. Soper says:

"There is something incongruous about a board of health conducting a crusade against smoke and noise and at the same time allowing the streets to be filthy with dirt and dust and offensive with accumulations of fermenting garbage. Again, a great deal of the attention of health boards is occupied with alleged private nuisances which affect comfort, but not health. The history of every city is a record of more and more strict regulations to minimize the unpleasant as well as the insanitary conditions of household life."

In the sanitary education of the public the important aid given by the press is recognized, but it is to be regretted that the opportunities for systematic school instruction on these subjects are still to a large extent lacking. "In the campaign of sanitary education which is going on it is a deplorable fact that the universities and colleges of the United States are singularly backward. With a few notable exceptions, there is scarcely a school for higher education in the United States where a competent knowledge of hygiene can be obtained. In spite of the fact that many of the largest and most prominent universities have had severe experiences with typhoid, they have been exceedingly slow in providing proper facilities for the teaching of hygiene. One of the greatest needs of to-day is the want of competent teaching for health officers, physicians, engineers and others who may wish to obtain a complete and practical knowledge of their profession. In the absence of suitable facilities for the education of health officers the United States is decidedly behind European countries."

The propriety of the extension of the activity of health boards into the realm of esthetics may be questioned, but they have been granted ample power. The standards of public health and municipal hygiene are continually growing higher. "First and foremost among the defects and needs of public health administration," says Soper, "must be placed the want of adequate knowledge of the principles and practices of public health work on the part of officials having jurisdiction. It is a deplorable fact that special professional qualifications are not as a rule required of health officers in the United States.

"If there is any department of municipal government that should be taken out of politics and put on a high plane of professional efficiency it is public health work. Generally in the United States appointment on a public health board means a thankless and gratuitous service performed for the sake of the small honor which is supposed to go with it. Where a salary is connected with the position the office is too often a reward of political work rather than of professional merit.

"Until the need of high-class health work is demanded, appreciated and properly rewarded by compensation in money and honor, men will not be prepared in the schools for a life-work in the public health service, and the most needed improvement in the work of boards of health will not be made."

Remote Results of Treatment of Round Gastric Ulcer.—H. Westphalen of St. Petersburg remarks that only 50 per cent. of the patients dismissed apparently cured after internal treatment for gastric ulcer are in fact actually cured. The affection is merely in a latent phase in the others and recurs later. Operative measures then are able to effect a cure in about 50 per cent. This is the average he deduces from review of the literature, with which he compares his own experience. He was able to trace 150 of his patients two years and more after the course of internal treatment for gastric ulcer, and he states that 37 per cent. were definitely cured by a single course and 16 per cent. additional by a repetition of the von Leube course of treatment—53 per cent. in all. The interval of latency had been as long as twelve years in some of the cases of recurrence, suggesting that the trouble was a new ulcer rather than recurrence. The recurrence was ascribed to error in diet, lifting a heavy weight, or other mechanical cause in some cases, but it is his impression that in most some emotional cause was responsible. In 47 per cent. of the cases the patients suffered from continued disturbances or complications. The trouble was generally of long standing in such cases; it subsided into latency for a time after treatment, but was ready to flare up again at the least excuse. The slightest divergence from the diabetic regulations imposed was followed by trouble; one patient returned five times to the hospital for internal treatment. In one case a latent gastric ulcer flared up again after a long interval, the immediate cause being the news of the sudden illness of a member of the patient's family. He was an elderly man and a hypersecretion of gastric juice and vomiting followed the emotion and the hyperacidity irritated the latent ulcer into renewed activity. In another patient the ulcer roused from its latent condition under the influence of fright from an earthquake. Perigastric adhesions are probably responsible for the return of trouble after mechanical strain. Operative treatment was applied in 36 of the 70 cases in which the ulcer caused trouble later, with a complete cure in 30 per cent. He advocates a repetition of the course of internal treatment for the ulcer after the gastroenterostomy, stating that the only case in which this was neglected was the one instance in his experience in which a peptic ulcer developed afterward in the duodenum. The importance of careful dieting for a year after internal treatment and after operative measures is now generally recognized. Some of his patients had suffered for thirteen years from the symptoms of ulcer before the internal course was successfully applied, and some with unhealed ulcers were young, while some with healed were elderly. These and other reasons force him to believe that there is some as yet unknown factor which renders certain ulcers refractory to treatment to which others yield so readily. In 9 of his cases brothers and sisters or parents and children were affected, which suggests some family tendency. His comparative study of the subject is published in the *St. Petersburg. medizinische Wochenschrift*, January 16, 1909. The best results from the gastroenterostomy were attained when the symptoms were due to mechanical disturbances, stenosis and perigastritis; the most unfavorable cases were those in which the operation was done on account of the lack of healing of the ulcer or repeated hemorrhages.

Sanitary Conditions in China.—Vice Consul-General Hull, Canton, states that there are no official statistics or records of facts relating to the sanitary conditions and mortality rate of Canton, and that the facts given in this report were gathered by observation. The following summary is quoted from him in the *Public Health Reports* of the U. S. P. H. and M.-H. S. Most buildings in Canton are low, being one story, or a story and a half high, with large openings from the top to the ground floor. Light and ventilation are provided for by ventilators or skylights in the roof. During the hot season (April to October, inclusive) from 60 to 70 per cent. of these buildings have a bamboo or mat wind shoot or funnel which distinctly reduces the temperature within the buildings. The city streets are largely paved with Hongkong granite. In the center of most of the streets is a surface sewer about 2 feet wide and 3 deep, just beneath the stone pavement, built of sandstone, brick, or tile. While these sewers are often clogged, they are frequently cleared out. About one-half of these sewers, more particularly those outside the walls, are reached by tide water each day, which helps to clear these drains. For centuries past the city water supply has been from surface wells and the river. This is now largely modified by the recent introduction of a modern system of waterworks, pressure being secured by well-constructed standpipes. The source of supply is from the river several miles northwest of the city. Modern machinery, filter beds, and pipes are used and an analysis of the water, shows it to be of good quality. The diseases of Canton are such as are usually found in a semitropical climate. Malaria, dysentery, and typhoid are common, though the latter has prevailed only during recent years. Tuberculosis is rife. Beriberi and bubonic plague are restricted largely to the summer months. True Asiatic cholera has been present twice during the past twenty years in epidemic form. At other times only occasional cases are seen. Smallpox in a mild form is present among the Chinese during the winter (December to February). Leprosy in its various form is frequently encountered among the poorer classes. The population of Canton is generally overestimated. No census has been taken, but a fair estimate of the population of the city and its immediate suburbs, including the boat population, would certainly be somewhat less than 2,000,000. Canton city itself, exclusive of the boat population, which may be estimated at 200,000, would hardly reach 1,000,000. There are almost no native hospitals in Canton, civil or military, worthy of the name. There are many public dispensaries connected with the Shin Tongs, or halls of good work, scattered about the city, but their use is largely restricted to the dispensing of Chinese drugs to outpatients. There is a military hospital in a temporary building or shed, connected with the large camp just outside the northeast corner of the city, near the imperial mint. There is also a Fong Pin hospital just off the northwest corner of the city wall where patients are received as in-patients. The principal hospital and the oldest in the city is the Medical Missionary Society's hospital, commonly called the Canton Hospital. It has 300 beds, and in emergency this number could be largely increased. It is situated on the river front, less than one-quarter of a mile east of the custom house and foreign settlement. Over 2,000 in-patients and 25,000 out-patients are treated annually, while about 2,000 surgical operations are performed each year. There are 10 main buildings, including the medical college building, connected with the hospital. The institution is supported entirely by the local Chinese and foreign communities. There is also the Paul Donour French hospital, located near the electric light works on the river front. It is a neat little hospital of 80 or 100 beds, managed on modern lines, and efficient work is done.

Ultramicroscopic Organisms.—H. Molisch (*Bot. Ztg.*, 1908,, lxvi, 131) states that most of those organisms usually spoken of as ultramicroscopic are rendered plainly visible by an alternating light and dark illumination of the field of the microscope. They are visible by any ordinary microscope and are not ultramicroscopic in size. Most of them are bacteria. In his opinion, if ultramicroscopic organisms were of common occurrence they would occasionally be found to form colonies on culture media. Such colonies would in all probability be visible to the naked eye. At least they would be visible under low magnification. Yet all organisms which form colonies are visible singly under the microscope. He does not deny the possible existence of ultramicroscopic organisms (i. e., organisms of less than 0.2 microns diameter), but as-

serts that up to the present time no one ultramicroscopic organism has been shown to exist. The work of Raehlmann and Gaidukov is criticised. There exists no organism of an ultramicroscopic nature with such characteristics as are attributed to it by these authors.

Cesarean Section in Mexico in the Eighteenth Century.—Dr. M. C. Terry of the Marine-Hospital Service sends us the following excerpt from the "Recopilacion Sumaria de los Autos Acordados de la Real Audencia de esta Nueva España, 1677-1786," Beleña, Mexico, 1787:

CIRCULAR OF OCTOBER 10, 1772

JUSTICES OF THE PEACE TO GIVE ROYAL ASSISTANCE FOR THE CESAREAN OPERATION

[It is decreed] That all justices of the peace shall supply the Royal Assistance whenever it is asked of them for the performance of the Cesarean operation, under penalty of 500 pesos; compelling, when necessary [the attendance of] physicians; constraining also, the parents, husband or relatives of the dead woman in case of their refusal, opposition, or their failure to give due notice of the necessity of the operation.

It has been suggested that the "Royal Assistance" spoken of was an official institution analogous to the *Assistance Publique* in Paris.

The Asepsis of the Pancreatic Juice.—On the basis of his observations and experiments A. Frouin (*Arch. internat. de physiol.*, 1908, vi, 253) is led to conclude that, normally, bacteria are not found in the pancreatic ducts. Pancreatic juice obtained from the pancreatic duct is bacteria-free when there has been no disturbance of the normal physiologic activity of the alimentary canal. From rough handling of the upper intestine, from violence or after the establishment of a duodenal fistula there may be a back-flow of the fluid intestinal contents into the pancreatic duct. In this manner an infection of the pancreas may be brought about. This, however, seldom occurs, since the orifice of the duct is rather well guarded from a back-flow, and whatever bacteria thus gain entrance into the duct are washed out by the outflowing pancreatic juice before a foothold is obtained by them.

Medicolegal

Hospital Not Made Liable for Autopsy by Notification of Coroner

The First Appellate Division of the Supreme Court of New York says that the case of Darcy vs. Presbyterian Hospital was brought to recover damages from the hospital because a coroner's physician of the city of New York performed an autopsy on the body of John Darcy, the plaintiff's son, who was a patient and died in the hospital. The contention was that the hospital had violated its express duty and implied undertaking to deliver the body of John Darcy after his death to the plaintiff in such a condition as it might be at the time of his decease.

It appeared from the evidence that on the advice of his physician John Darcy had been removed to the hospital, his mother agreeing to pay the hospital $1 per day. After his death, the physician in charge of the case, being unable to determine the cause of his death, requested the plaintiff to consent to an autopsy, which she refused to do. Subsequent to such refusal the hospital authorities called up the board of health on the telephone, made a statement of the case to the representatives of that board, and was directed by them to notify the coroner's office. A coroner's physician subsequently appeared at the hospital, examined the clinical history of the case and the report of the hospital superintendent, decided that an autopsy was necessary, and performed it without any request of the hospital authorities, after which the body of the deceased was delivered to the plaintiff.

This was the plaintiff's case, and the court thinks it disclosed no cause of action. There was no evidence that the hospital authorities, or those for whose acts the corporation was responsible, performed this autopsy, had anything to do with or was responsible for it, except so far as the board of health and the coroner's office were informed of the death of the patient in the hospital. This certainly imposed no liability on the hospital corporation. There was no evidence that a false statement was made to the coroner or to the board of health, or that anything was said or done to induce the public authorities to take charge of the case or perform an autopsy. The bare fact that the hospital authorities informed the coroner that a death had taken place in the hospital imposed no liability on the hospital for the acts of the public authorities, taken on their own responsibility, as to the subsequent disposition of the remains.

The sole ground on which there could be any liability would be the fact that the hospital authorities had made a false report to the coroner, and thus induced him to make an autopsy when none was justified by the symptoms of the patient. It is quite clear that the mere report by an attending physician at a hospital to the coroner's office of the case of a person dying in a hospital, so that the coroner or his physicians shall make the necessary and proper examination, imposes no liability on the hospital.

Adulteration of Water

The United States Board of Food and Drug Inspection, in Notice of Judgment No. 41, gives the result, in the Supreme Court of the District of Columbia holding a District Court of the United States for said District, of the case of the United States vs. 350 Cases and 100 Demijohns of Water Labeled "Great Bear Spring." The board says that an inspector of the Department of Agriculture purchased samples of water labeled "Great Bear Spring Water," which were promptly subjected to analysis in the Bureau of Chemistry. The results of the analysis showed that the water contained the colon group of organisms, which indicated that there was a contamination rendering the water unfit for human consumption The conclusions of the analysts were confirmed by an inspection of the bottling plant and of the methods employed there, which disclosed that the contamination was due to insanitary surroundings and uncleanly methods of handling at the time the water involved in this case was bottled. The facts were reported by the Secretary of Agriculture to the United States attorney for the District of Columbia, and libel for seizure and condemnation was duly filed in the court named with the result of a decree that the water seized be condemned as prayed for in the petition and disposed of by destruction, the spring company to pay the costs of these proceedings, including court costs, storage, cartage, and the other costs, if any, as assessed by the marshal.

Claims for a "Patent Medicine" Too Much for a Court

The Appellate Court of Indiana, Division No. 1, says that the suit of the A. N. Chamberlain Medicine Company vs. H. A. Chamberlain Medicine Company, was for an injunction because of an alleged unfair competition and infringement of the trade-name, "A. N. Chamberlain's Immediate Relief." It was sought to restrain the H. A. Chamberlain Medicine Company from using the words "Chamberlain" and "Medicine" in its corporate name, and from using the words, "Chamberlain" and "Relief" in the name of its medicine: "H. A. Chamberlain's Infallible Relief." The answer was in two paragraphs, the second alleging that the plaintiff, prior to and during the pendency of a former action between the parties, used obscene literature in its advertising matter, and falsely advertised and represented its medicine to be a cure for divers and incongruous diseases.

It was shown by the uncontradicted evidence that the appellant's (plaintiff's) medicine, known as "Chamberlain's Immediate Relief," was widely advertised and represented to the public as being a certain and effectual cure for the following divers diseases: "Eczema or yellow fever, Asiatic cholera in its first stages, or chilblains, catarrh, or seasickness, diphtheria or pimples, cholera morbus or bee stings, bites of poisonous reptiles or piles, dysentery or scratches on horses

scarlet fever or sour stomach, measles or cramps, neuralgia or general debility, hysterics or hog cholera, la grippe or bloat and scours in horses, cattle and sheep, diarrhea or itching and eruptions, bilious fever or wind galls on horses, bloody flux or sick headache, fever and ague or heaves in horses, colic or toothache, spotted fever or nervous tremors, sore throat or chicken cholera, cold feet or scalds and burns, rheumatism or earache, dumb ague or cuts and bruises, colds or summer complaint, coughs or colic in man or beast, griping pains or nervous headache, sprains and wounds or diseases of young lambs"—all from one and the same bottle.

"We," the court says, "have exhibited the diseases, for which appellant claims its medicine to be a panacea, in the above form in order to show at a casual glance the absurd incongruity of its representations, and thereby illustrating the character of the business that appellant is praying a court of equity to protect. It will be seen that this medicine is claimed to be a sovereign remedy for about all of the ills that flesh is heir to; and, if appellant's said representations are to be believed, and they are certainly made for this purpose, then, as is well said in Fetridge vs. Wells, 13 How. Prac. (N. Y.) 385: 'It would seem that so long as this medicine may be procured it will be a folly to grow old and a mistake to die.'

"There is another phase of appellant's advertisements we can not overlook. It not only recommends its medicine as a cure for diphtheria, along with other diseases, but emphasizes this recommendation with a separate line: 'This cure for diphtheria for sale by all druggists.' And advises, by what purports to be testimonials, that doctor bills as well as lives can be saved by using this specific in cases of diphtheria. This wanton advice, with reference to this known deadly disease, this reckless disregard for the consequences on human life, this palpable falsehood, put forth to deceive distressed, ignorant, and credulous people to their detriment, in cases of life and death, in order to make a few more sales of this nostrum, is atrocious and little less than a crime. 'The philosophy of the cure by Chamberlain's Immediate Relief,' says these advertisements, 'is very simple, and will at once commend itself to every thinking person. It is an antiseptic (against putrefaction), and kills poison whenever it comes in contact with it. It will kill the poisonous bacteria that lodge in the throat, and it will also destroy the terrible little animalculæ.' We hardly think it necessary to say more to convince an ordinarily informed mind that the business of appellant transacted through the medium of the trade-name and mark that it is sought to have protected by this court is fraudulent and a deception on the people. We do not say the medicine has no merit. It is unnecessary for us to pass on that point, but it is apparent that it can not have anywhere near the miraculous virtues ascribed to it, and its advertisements present an attempt at a gross imposition on the public, as well as a menace to human life.

"It is an ancient and equitable rule that 'he who comes into a court of equity must come with pure hands and a pure conscience,' and it is also well established by the authorities that, if a complainant in a court of equity claims relief against the fraud or imposition of others, he must himself be free from the same charge with reference to the same matter. If the business of such complainant is, or is sought to be, affected and injured by the misrepresentation or deceit of another, he can not be heard in a plea that by the fraudulent rivalry of another his own fraudulent profits are destroyed or diminished. The exclusive privilege of deceiving or perpetrating a fraud on the public is hardly a fit subject to be entertained in a court of equity, and certainly not one that such a court can be required to aid or sanction.

"It is no defense to the charge here discussed that appellee (the defendant) may be in the same respects equally an offender. It will be considered that it, in a like case, would be likewise dealt with. Appellant's manner of using its trade name and trade-mark and conducting its business connected therewith is a fraud on and a danger to the public. The law may permit it, but equity will not protect it."

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

New York Medical Journal

April 17

1 *Technic of the Wassermann Reaction. E. Castelli, New York.
2 *Spontaneous Combustion. J. Knott, Dublin, Ireland.
3 *Surgical Treatment of Epilepsy. W. P. Carr, Washington, D. C.
4 Importance of Cerebral Lesions Complicating Suppurative Otitis Media. S. M. Smith, Philadelphia.
5 *Longevity and Rejuvenescence. J. L. Nascher, New York.
6 Long Life and Hot Climates. W. F. Robinson, Palm Beach, Fla.
7 *Acute Postoperative Dilatation of the Stomach. D. S. Fairchild, Des Moines, Iowa.
8 *Correct Definition for Abdominal Hernia, Illustrated by Two Cases. G. I. Miller, Brooklyn.

1. **The Wassermann Reaction.**—Castelli first enunciates the principle of the reaction and technic. He describes the reagents and modes of obtaining them and the method of obtaining the reaction; discusses the value of the reaction with reference to diagnosis, therapeutics and prognosis, and arrives at the following conclusions:

1. The rôle played by syphilis needs no comment. If we are now in a position to tell the patient coming for advice that notwithstanding his previous syphilitic infection he can marry and create a healthful progeny, we have a tremendous factor of mental tranquillity to offer in very many cases. If we can establish the fact that syphilis is curable it will be another great triumph for medicine.

2. The proof of derangement in mental poise as a result of previous syphilitic infection may be a helpful factor in the administration of justice.

3. The serodiagnosis will be a means of differential diagnosis during the preparalytic stage, when the general symptoms are very indefinite and generally masked by a well-defined neurasthenic syndrome. The differential diagnosis between general paralysis and neurasthenia during this period would represent the real prophylactic warning. This person during the preparalytic stage is already dangerous to himself, to his family and to society at large, and early diagnosis of his condition makes possible the safeguarding of the patient in an asylum before the dangerous manifestations of the disease have resulted in injury to himself and others, and compelled society to take protective and coercive measures against him.

4. While the serodiagnosis at present is not perfect and is moreover necessarily confined by its requirements to the hands of the few, it furnishes such a rich amount of sure diagnostic data over the positiveness of a syphilitic infection that its adoption in the different hospitals and medical institutions should be no longer optional but absolutely necessary.

2. **Spontaneous Combustion.**—Knott points out that spontaneous combustion is still accepted as an article of pathologic faith by recognized leaders in the domain of medicolegal opinion and is taught in the pages of the most comprehensive treatises on medical jurisprudence. He therefore examines the evidence from the earliest times that has been adduced in favor of this belief. The article, which will be continued, is of considerable antiquarian interest.

3. Abstracted in THE JOURNAL, Jan. 23, 1909, p. 322.

5. **Longevity and Rejuvenescence.**—Nascher discusses the natural course of life and the effect on it of forced activity. He concludes that the whole question of longevity hinges on the mode of living. If we favor the unnatural precocious development of youth and maintain indifference during the period of maturity, thus shortening both periods, we shall have an early and short period of decline. If we prolong the period of development, and prolong the period of maturity preparing for the succeeding period we shall have a late and long period of decline.

7. Abstracted in THE JOURNAL, Jan. 16, 1908, p. 237.

8. **Abdominal Hernia.**—Miller reports two cases and expresses the opinion that a correct definition for abdominal hernia would be "the escape of the abdominal contents in a congenital or acquired sac of peritoneum which is within the abdominal cavity or has passed through some point of its muscular wall."

Boston Medical and Surgical Journal

April 8

9 *Examination of the Feces for the Study of the Functional Condition of the Alimentary Tract in Clinical Work. H. F. Hewes, Boston.
10 Municipal Hospital for Advanced Consumptives in Boston. E. A. Locke and S. F. Cox, Boston.
11 A Cursory Review of Surgical Methods for the Extirpation of Hemorrhoids. T. C. Hill, Boston.

April 15

12 *Some Truths About Hydrotherapy. S. Baruch, New York.
13 The Personal Element in Prescribing Hydrotherapy. H. C. Baldwin, Boston.
14 *Treatment of Fibrinous and Serofibrinous Pleuritis. F. T. Lord, Boston.
15 *Seven Cases of Noma; Two Recoveries; Forty Infected. L. R. G. Crandon, E. H. Place, and W. J. Brown, Boston.
16 Consumption of Alcohol and of other Medicines at the Massachusetts General Hospital. R. C. Cabot, Boston.
17 Therapeutic Action of Rattlesnake Venom in Pulmonary Consumption, in Acute and Chronic Bronchitis, Asthma, Etc., and in Some Well-Recognized Neuroses. T. J. Mays, Philadelphia.

9. **Examination of the Feces.**—Hewes points out that examination of the feces, which is to-day a recognized routine clinical method, may give evidence regarding two different sets of facts: (1) Diseased conditions of the gut, as by the presence of mucus or pus, blood, worms, eggs, or micro-organisms; (2) disturbance of the functional condition of the alimentary tract for digestion and absorption of the food, as determined by the study of food remains in the feces. For the first purpose examination of any specimen of feces will serve; for the second, feces obtained under administration of a test diet are required. The method of examination may be either chemical or macroscopic and microscopic.

He describes in detail the test diet and the method of examination constituting this particular clinical study, whereby the trained observer can determine in a given case the utilization of food products in the alimentary tract. He discusses the significance of the various findings in regard to meat, starch, and fat respectively. The disturbance of fat digestion is gone into at considerable length and findings in normal and diseased conditions are tabulated.

The general usefulness of this method of macroscopic and microscopic study of the food contents of the test diet feces in clinical work is very great, but it does not, of course, provide us with a complete knowledge of the condition of function for the digestion and absorption of the various forms of food included in our diet. It tells us nothing, for example, in regard to the state of proteid or carbohydrate absorption; its indications in regard to the utilization of these two forms of food substance, consist only of evidences of the condition of the function of digestion of one special form of proteid substance, meat fiber, and one form of carbohydrate substance, starch. For indications in regard to these functions, the absorption of proteid and carbohydrate, as also for exact indications of the extent of disturbance of the function of fat utilization, or the proportionate quantities of the various forms of fat substance present, we are dependent on chemical analysis. For such information as it does provide, however, the method is of distinct use in general clinical work.

12. **Hydrotherapy.**—Baruch insistently urges, that in the application of the bath in infectious fevers, the antipyretic effect is secondary to the nerve stimulating and sustaining effect. The cold bath, and indeed every cold procedure, has for its chief object the enhancing of the resisting capacity of the patient to disease. The cause of the prevailing neglect of hydrotherapy—of which he gives numerous instances—is ignorance of the physiologic and therapeutic action of water, and its remedy is the removal by instruction in our schools, which, to be effective, must be obligatory. Baruch says that the average text-book must be avoided by the seeker after knowledge in hydrotherapy, and he cites numerous instances of recent text-books in which the information given is always inadequate and often grossly inaccurate. The practitioner should depend only on works written by physicians who, like himself, have experience in general or hospital practice. The study of hydrotherapy would be simplified, were it regarded as a method of utilizing the physiologic action of thermic excitation through the medium of water. He describes the mode of prescribing minutely hydrotherapeutic treatment.

14. **Fibrinous Pleuritis.**—Lord emphasizes the importance of tuberculosis as a cause of fibrinous and serofibrinous pleuritis. From published records it appears to be established that at least three-fourths of the primary pleurisies with effusion are tuberculous. Out of every 10 cases of primary fibrinous or serofibrinous pleurisy at least 3 or 4 develop pulmonary or other tuberculosis within an average period of from 4 to 6 years. He suggests that all cases of primary fibrinous and serofibrinous pleurisy, however mild, should be treated as tuberculous until proved otherwise. He discusses thoracentesis in regard to its indications, the question of tapping medium and small effusions, the method of removal of fluid and the amount withdrawn.

15. **Noma.**—Crandon, Place and Brown, from a study of several cases, hold that noma is not proved to be a contagious disease and need not be isolated. Any uncared-for mouth, particularly in a sick child, and especially after measles, many contain *B. fusiformis* and *Spirochæta gracilis*. In such a mouth these organisms may be found without ulceration or in the lesions which have been described as stomatitis gangrenosa, Vincent's angina and noma. The lesions, in other words, may be only round the roots of teeth, on tonsils and pillars, on inner sides of cheek, in nasal fossæ, on the external ear and about the genitals. Any of these conditions, including the extensive gangrene and sloughing of so-called noma, may be different stages of the same disease, which may be, therefore, considered as not necessarily a specific disease, but the successful ingress of mouth bacteria into tissues rendered non-resistant by uncleanliness and preceding disease.

Medical Record, New York

April 17

18 *Freezing as a Therapeutic Measure; Liquid Air and Carbonic Acid Snow. G. T. Jackson, New York, and S. D. Hubbard, New York.
19 Early Diagnosis of Syphilis and the Technic of Examination for the *Spirochæta Pallida*. W. J. Stone, Toledo, O.
20 *Why Mastoiditis is Sometimes Misunderstood. E. Amberg, Detroit.
21 Two Unusual Cases of Appendicitis. A. Nicoll, New York.
22 Gonorrheal Conditions in Women. A. J. Love, New York.
23 Extensive Peritonitis; Perforation of the Rectum. J. H. Stevens, Boston.

18. **Liquid Air and Carbonic Acid Snow.**—Jackson and Hubbard claim more prominence for the name of Dr. A. Campbell White as the first to use liquid air as a therapeutic measure. They describe the making of liquid air and liquid carbon dioxid and the methods of application. They next describe the methods of making and gathering carbonic acid snow, the microscopic findings in frozen skin, and the methods of applying the snow. They consider carbonic acid snow preferable to liquid air, because it is always to be had, which is not the case with liquid air, and because the smallest sized lesions can be frozen with it, whereas with liquid air it is often necessary to freeze a greater area than therapy calls for. Freezing is used mostly as a destructive agent. The authors consider it the best treatment for lupus erythematosus. Every case of this most intractable disease has been cured when the patient has given them the opportunity to complete the treatment. Nevi of all sorts are amenable to freezing, but port-wine marks do not yield so readily as other forms. Epitheliomas, especially of the rodent ulcer type, they regard as a special field for freezing. Other conditions, all of which have yielded to freezing, are keratosis senilis, warts, papillomata, tatoo marks, powder stains, hypertrophied scars, keloid, tuberculosis verrucosa cutis, chloasma and scrofuloderma.

20. **Mastoiditis.**—Amberg concludes that at present it is impossible to reach an absolutely certain decision regarding the necessity of surgical interference in some cases of affection of the temporal bone. In some cases the groups of symptoms, and in many cases the presence of one or two marked symptoms, makes surgical interference appear imperative. The danger of general inhalation anesthesia in any operation, especially in persons suffering from tuberculosis, should not be forgotten, and local anesthesia might be more thoroughly tested in cases in which general anesthesia is contraindicated. The temporal bone contains numerous groups of cells which may come into consideration in an affection of this bone, and therefore the term "mastoiditis" is sometimes misleading. The construction of the temporal bone is such that a process can go on in the depth without betraying itself by very plain symptoms; marked symptoms may appear suddenly, and in some instances they pronounce the death sentence of the patient.

Lancet-Clinic, Cincinnati

April 17

24 *Municipal Charities of Paris, France, Including the Principal Hospitals. F. Dowling, Cincinnati.
25 Loss of Blood in the Relief of Mental Agony and Distress. B. Holmes, Chicago.
26 Pulsation of Large Aneurisms Non-Expansile, but Transmitted. S. Lange, Cincinnati.

24. **Municipal Charities of Paris.**—Dowling writes an interesting descriptive and historical article, illustrated by photographs, concerning the Paris hospitals.

American Journal of Medical Sciences, Philadelphia

April

27 *Surgical Anemia and Resuscitation. G. W. Crile, Cleveland, O.
28 *Influence of Emotional States on Functions of Alimentary Canal. W. B. Cannon, Boston.
29 *Meaning of Hematemesis. W. F. Cheney, San Francisco.
30 Concerning Diseases that Depend on Disturbances of Internal Secretion. W. Falta, Vienna, Austria.
31 *Treatment of Acute Infectious Diseases with Extracts of Leucocytes (Hiss). S. W. Lambert, New York.
32 Roentgen Rays in Treatment of Deep-Seated Malignant Disease. G. E. Pfahler, Philadelphia.
33 *Is Percussion as a Method of Testing the Lungs Deserving of Greater Attention? C. E. Waller, Halahult, Sweden.
34 Specific Aids in Diagnosis and Prognosis of Tuberculosis. S. von Ruck, Asheville, N. C.
35 Some Aspects of Calculous Anuria. F. S. Watson, Boston.
36 Importance of Modifications of the Sensibility in the Diagnosis of Disease. T. A. Williams, Washington, D. C.
37 Cysts of the Common Bile Duct. R. S. Lavenson, Philadelphia.
38 Multiple Infection. W. R. Stokes and T. M. Wright, Baltimore.
39 Diaphragmatic Hernia. E. T. Bell, Columbia, Mo.

27. **Surgical Anemia and Resuscitation.**—Crile reports observations on 20 dogs killed by chloroform and resuscitated after periods varying from 3 to 14 minutes, with a view to determining the limits of recovery after a total anemia of the nervous system. He discusses the histologic findings of presumptive recoveries and fatal cases. In human resuscitation the technic is as follows: The patient in the prone posture is subjected at once to rapid rhythmic pressure on the chest, with one hand on each side of the sternum. This pressure produces artificial respiration and a moderate artificial circulation. A cannula is inserted toward the heart into an artery. Normal saline, Ringer's or Locke's solution, or, in their absence, sterile water, or, in extremity, even tap water, is infused by means of a funnel and rubber tubing. But as soon as the flow has begun, the rubber tubing near the cannula is pierced with the needle of a hypodermic syringe loaded with 1 to 1,000 adrenalin chlorid and from 15 to 30 minims is at once injected. The injection is repeated in a minute if needed. Synchronously with the injection of the adrenalin the rhythmic pressure on the thorax is brought to a maximum. The resulting artificial circulation distributes the adrenalin that spreads its stimulating contact with the arteries, bringing a wave of powerful contractions and producing a rising arterial, hence coronary, pressure. When the coronary pressure rises to, say, 40 mm. or more, the heart is likely to spring into action. Just as soon as the heart beat is established the cannula should be withdrawn. Bandaging the extremities and abdomen tightly over the masses of cotton is very useful. From a personal experience in attempts at resuscitation of the human being, Crile has been impressed by two main facts: (1) The human heart seems to respond even more readily than the heart of a dog; (2) the possibility of drilling an operative staff so that the technic may be begun within two minutes.

28. **Influence of Emotion on the Alimentary Canal.**—Cannon points out that the ordinary physical changes expressive of emotion are mainly superficial, manifesting themselves at the periphery and occurring chiefly in structures supplied with smooth muscle and innervated through the sympathetic nervous system. More deeply lying structures, however, with similar musculature and nervous supply, are similarly affected by emotional conditions. He cites as instances the bladder and alimentary canal, and discusses the latter in detail, showing how profoundly the mental state may affect favorably or unfavorably the secretions of the stomach, so important for the continuation of the digestive process, and how quickly and directly the mental state may entirely check the onward movement of the food. As already noted, an emotional disturbance affecting the alimentary canal is capable of starting a vicious circle; the stagnant food, unprotected by abundant gastric juice, naturally undergoes bacterial fermentation, with the formation of gases and irritant decomposition products. These, in turn, may produce mild inflammation or be absorbed as substances disturbing to metabolism, and thus affect the mental state. And the depressed mental state that accompanies indigestion may still further prolong the indigestion. The importance of avoiding so far as possible the initial states of worry and anxiety, and of not permitting grief and anger and other violent emotions to prevail unduly, is not commonly understood, for the subtle changes wrought by these emotional disturbances are not brought to consciousness, and are clearly known solely through physiologic studies. Only as these effects are better understood can the bad results be avoided, or, if not avoided, regarded and treated with intelligence.

29. **Hematemesis.**—Cheney refers to the startling effect of vomiting blood and discusses the possibilities that may underlie it. He cites these possibilities, discussing each in turn as follows: Cirrhosis of the liver, gastric ulcer, gastric cancer, splenic anemia, acute pancreatitis, uremia and toxic gastritis.

31. **Extracts of Leucocytes in Acute Infectious Diseases.**—Lambert holds the following conclusions, relating to the use of His' extract of leucocytes in infectious diseases, justified: We have a new remedy representing a new point of view in the study of immunity, proving an intracellular immunity in addition to the accepted types of serum immunity and of phagocytosis. This remedy is applicable to obscure cases of unknown bacterial cause, to cases of disease with unknown or unapproachable lesions. The remedy influences the toxemia of the disease and gives an opportunity to the body cells to overcome the infection by removing from them the necessity of immediately attacking the endotoxins of the bacteria. It is by no means a "cure-all." In application, it is painful locally, but it has caused no other local complications, and the urticaria so often seen in the use of serum has been conspicuous by its absence.

33. This article was discussed editorially in THE JOURNAL, April 24, 1909.

American Journal of Physiology, Boston

April

40 Heat Coagulation in Smooth Muscle; A Comparison of the Effects of Heat on Smooth and Striated Muscle. E. B. Meigs, Boston.
41 Connection Between Changes of Permeability and Stimulation and the Significance of Changes in Permeability to Carbon Dioxid. R. S. Lillie, Woods Hole, Mass.
42 Factors Regulating the Creatinin Output in Man. P. A. Lavene and L. Kristeller, New York.
43 *Acapnia and Shock.—III. Shock After Laparotomy: Its Prevention, Production, and Relief. Y. Henderson, New Haven, Conn.
44 *Rôle of Ash Constituents of Wheat Bran in Metabolism of Herbivora. E. B Hart, E. V. McCollum, and G. C. Humphrey, Madison, Wis.
45 *Effect of Smoking on the Blood Pressures and on the Volume of the Hand. J. W. Bruce, J. R. Miller, and D. R. Hooker, Baltimore.
46 Production by Hydrogen Peroxid of Rhythmic Contractions in the Marginless Bell of Gonionemus. O. P. Terry, Woods Hole, Mass.
47 Studies in the Physiology of the Central Nervous System: 1. The General Phenomena of Spinal Shock. F. H. Pike, Boston.
48 Hydrolysis of Vitellin from Hen's Egg. T. B. Osborne and D. B. Jones, New Haven.
49 Hydrolysis of Muscle of Scallop (Pectens Irradians). T. B. Osborne and D. B. Jones, New Haven, Conn.
50 Experimental Studies on Physiology of Molluscs (Fourth Paper). L. B. Mendel and H. G. Wells, New Haven.
51 The Supposed Connection Between Protein Coagulation and the Heat Shortening of Animal Tissues. E. B. Meigs, Boston.

43. **Acapnia and Shock.**—Henderson has shown that irritation of a sensitive nerve leads to hyperpnea, and the increased rapidity of breathing leads to thorough aëration of the blood, unusual loss of carbon dioxid, or acapnia, and consequently to shock. In abdominal operations there is another factor productive of acapnia and shock, viz., the exhalation of carbon dioxid from the exposed viscera. Henderson sums up the results of his investigations as follows: Acapnia, due to hyperpnea, plays an important part in the central inhibition of

peristalsis occurring under surgical operations. Local acapnia, due to direct exhalation of carbon dioxid, is a factor in the loss of tonus in exposed viscera. When loss of carbon dioxid, both by way of the lungs and by direct exhalation, is prevented, and the blood gases are maintained nearly normal, peristalsis can be directly observed in the stomach and in the small and large intestines. The minimum rate of exhalation of carbon dioxid from exposed peritoneal surfaces is from 0.15 to 0.20 c.c. per sq. cm. in the first half hour, or 40 times the rate from the skin. Exposing the abdominal viscera to a current of air at body temperature saturated with moisture rapidly induces congestion and loss of tonus and motility. Aëration of the viscera in this manner is an effective method for the production of shock. Restoration of the body's store of carbon dioxid is effective as a method of relief from all except the extreme stages of acapnial shock. These observations, with others which are to be presented in later papers, indicate that the carbon dioxid tension in the nerve centers and in the tissues and fluids of the body is a factor in the maintenance of tonus (in the broad sense of the word) of the same order of importance as temperature, oxygen supply, osmotic pressure, and the equilibrium of anions and kations. Henderson also suggests that rapid respirations, hyperpnea, and consequent acapnia are responsible for lack of uterine tone in some cases of labor.

44. **Rôle of Ash Constituents of Wheat Bran.**—The experiments of Hart, McCollum and Humphrey were conducted on a cow, with special reference to the metabolism of potassium, calcium and phosphorus in the economy and their excretion in milk. They found that, in general, phosphorus and calcium were excreted by the feces and that when the amount of phosphorus was high, potassium was also excreted by the intestine. But when the amount of potassium was high and phosphorus low the greater part of the potassium was excreted in the urine. When calcium or phosphorus was deficient in quantity in the food, the skeletal tissues served as a source of supply thus providing against immediate disastrous results consequent on a sudden deficit in the intake of phosphorus or calcium. Variations within wide limits in the form and quantity of supply of potassium, magnesium or phosphorus did not influence the percentage content of these elements in the milk.

45. **Effect of Smoking on the Blood Pressure.**—Bruce, Miller and Hooker found that smoking raised the blood pressure and the pressure did not fall to the normal as soon as had been stated by Hesse. Due allowance was made for psychic influences. The authors do not believe, however, that their evidence lends much support to the theory that tobacco is an etiologic factor in arteriosclerosis, at least in so far as this theory assumes a mechanical injury to the vessels. The effects of moderate smoking on a man accustomed to its use would seem to be very little, if any, greater than the effects of those stimuli which are necessary consequences of civilized life.

American Journal of Surgery, New York

April

52 The Lingual Tonsil. F. C. Raynor, Brooklyn, N. Y.
53 Early Diagnosis of Carcinoma of the Uterus. I. L. Watkins, Montgomery, Ala.
54 *Value of Vaginal Fixation in Procidentia. S. S. Graber, New York.
55 Therapy of the Prostate. C. S. Stern, Hartford, Conn.
56 Cystitis. N. P. Rathbun, Brooklyn, N. Y.
57 Laryngeal Stenosis in the Adult, Successfully Treated by Intubation; Continuous Wearing of Tube for Four Years. W. K. Simpson, New York.
58 Case from Which 205 Gallstones were Removed Simultaneously with Operations on Cervix Uteri and Uterine Adnexa. A. Brothers, New York.
59 Thrombosis of Popliteal and Anterior and Posterior Tibial Arteries Complicating an Appendiceal Abscess. J. L. Campbell, Atlanta, Ga.
60 *Accident to Infant 17 Months old, with Extensive Injury to Abdominal Wall and Evisceration of all of Small Intestines: Recovery. R. B. Hall, Cincinnati.

54. **Vaginal Fixation in Procidentia.**—Graber discusses the palliative and other operations recommended in complete prolapse of the uterus, and argues in favor of vaginal fixation. He says that certainly this operation can never become so popular as ventrofixation, for there is too much to it and things are liable to happen, even during the operation. But an operation is of value, other things being equal, in proportion to the percentage of cures. The patients have nothing like so much vesical disturbance as might be expected, convalescence is usually smooth, and there would be practically no fatalities. While vesical fistula has so far not been noticed, he admits that it is not unlikely to become prevalent as the operation is more used, but this would not be the fault of the operation. Dührssen says that complications in subsequent pregnancy are not frequent, if they occur at all. In the one case of subsequent pregnancy seen by Graber labor was smooth. In 1892 Dührssen reported 114 cases with 102 cures, or 89.4 per cent. At the Lebanon and Postgraduate hospitals, Waldo has done 46 such operations and Graber about 24. Each has had one failure, but Graber considers his due to faulty technic and a bad case. But in any case he claims from 85 to 90 per cent. of success, and no other operation compares with this. He describes the technic.

60. Abstracted in THE JOURNAL, Jan. 23, 1909, p. 322.

Journal South Carolina Medical Association, Greenville

March

61 *Do We Pay Enough Attention to Prophylaxis? W. J. Burdell, Lugoff.
62 Medical Progress and Postgraduate Instruction in English Hospitals. L. O. Mauldin, Greenville.
63 Hernia. J. C. Harris, Anderson.
64 Treatment of Diabetes Mellitus. J. L. Jefferies, Spartanburg.

61. **The Physician and Prophylaxis.**—Burdell points out the necessity for the individual physician cooperating with his sanitary authorities in the matter of prophylaxis of infectious diseases. He cites three instances in his own personal knowledge of cases of typhoid in which the attending physicians gave no instructions in reference to disinfecting the stools prior to burial, flies, etc.; also with regard to the washing of handkerchiefs of tuberculous patients, etc. Attention to these matters is as important as asepsis in surgery. The surgeons have no monopoly on asepsis. He makes the following suggestions as to the way in which individual practitioners can aid the sanitary authorities in the prophylaxis of transmissible diseases: First, by careful attention to even the most minute details of preventive medicine in the management of those cases that come under his care, and careful and oft-repeated instructions to the families of the sick, and also to their neighbors; second, by each and every physician in the state impressing on the members of the general assembly from his county the necessity of giving the executive committee of the state board of health the legislation it asks for; third, by cooperating freely with the executive committee of the state board of health.

Journal Arkansas Medical Society, Little Rock

March

65 Malarial Hematuria. J. G. Waldrop, Augusta.
66 *Puerperal Infection. G. A. Warren, Black Rock.
67 *Importance of Examining Eyes and Ears of School Children. R. H. T. Mann, Texarkana.
68 *Pathology of Bone Tuberculosis. J. P. Runyan, Little Rock.
69 Importance of Early Diagnosis and Treatment in Arthritis Deformans. A. E. Cox, Helena.

66, 67, 68. Abstracted in THE JOURNAL, July 18, 1908, p. 250.

American Journal of Urology, New York

April

70 Congenital Strictures of the Urethra. Dr. Tedenat, Montpellier, France.
71 Summary of Progress in the Development of Modern Cystoscopes. B. Lewis, St. Louis.

Laryngoscope, St. Louis

April

72 Two Tests for the Diagnosis of Ossicular Ankyloses, and Instrument for Their Production. E. P. Fowler, New York.
73 *The Form of the Hard Palate. H. P. Mosher, Boston.
74 Tracheotomy. C. Jackson, Pittsburg, Pa.
75 Laryngectomy, Specimen. Method of Artificial Voice Production. J. W. Gleitsmann, New York.
76 Asthma Following Operative Measures in Ethmoiditis. D. MacPherson, New York.
77 Foreign Body (Toy Incandescent Lamp) in Left Bronchus. J. C. Beck, Chicago.

73. **The Hard Palate.**—Mosher discusses the asymmetry of growth of the two halves of the face and the hard palate, and believes that in faulty eruption of the posterior teeth, as well as of the anterior, and in their faulty occlusion, we have the explanation of fully half of the cases of asymmetry of the hard palate. In a measure, this paper is a continuation of his paper of last year. With the results of that article and of this one in mind, we have, then, as causes of deviations of the septum, trauma and faulty eruption and occlusion of the teeth. The practical application of both papers is obvious. It is first: To avoid trauma. This we all do instinctively. Second: To look after the proper eruption and spacing of the teeth. In the past, pardonable vanity and toothache have sent most of us to the dentist. In the future there should be a more scientific reason, namely, the attempt to avoid the harmful effect of poorly erupted and placed teeth on the septum and on nasal respiration.

Annals of Ophthalmology, St. Louis

April

78 Influence of the Eye on the Ear Under Normal and Pathologic Conditions. M. Rollet, Blois, France.
79 Size versus Distance in Test Types. C. Schulin, Billings, Mont.
80 Herpes Zoster Ophthalmicus with Involvement of the Cornea and with Oculomotor Paresis. B. Chance, Philadelphia.
81 Atropin—Its Use and Limitations in Correction of Heterophoria. G. D. Murray, Scranton, Pa.
82 Optico-Ciliary Vessels; Report of a Case. W. T. Shoemaker, Philadelphia.
83 Hereditary Blindness and Its Prevention (continued). C. Loeb, St. Louis.

Journal of Inebriety, Boston

Spring

84 The Disease of Inebriety. N. Kerr, London, Eng.
85 Alcoholic Psychosis. F. C. Horsford, Morris Plains, N. J.
86 *Relation of Salt to Inebriety. H. O. Beeson, Calcite, Col.
87 *Food and Alcohol—A Parallel. W. S. Hall, Chicago.
88 The Drink Problem. C. H. Shepard, Brooklyn, N. Y.
89 Effect of Deranged Metabolism Causing Exhaustion, for Which Spirits and Drugs Are a Most Grateful Remedy. A. L. Benedict, Buffalo.
90 Phototherapy in Nervous Disease. A. D. Rockwell, New York.
91 Voice Use and Its Relation to Alcohol. J. M. Brown, Chicago.
92 Seven Deadly Sins of Civilization. G. M. Gould, Philadelphia.

86. **Salt and Inebriety.**—Beeson urges that all supplementary salt with food is superfluous and distinctly harmful to digestion. Salt with food, in proportion of four parts or less to the thousand, is beneficial to digestion, but beyond six parts to the thousand it is positively harmful. The taste for salt in food is acquired in every instance. He discusses the physiology and pathology of the action of salt on the human economy, and says that, in addition to digestive disturbances, it produces genitourinary excitation. Indigestion is the bane of civilized man and the drink evil its inevitable consequence.

87. **Food and Alcohol.**—Hall presents the following comparative table as representing demonstrable facts and the teachings of laboratory work:

Food	Alcohol
1. A certain quantity will produce a certain effect at first; the same quantity will always produce the same effect in the healthy body.	1. A certain quantity will produce a certain effect at first, but it requires more and more to produce the same effect when the drug is used habitually.
2. The habitual use of food never induces an uncontrollable desire for it in ever-increasing amount.	2. When used habitually it is likely to induce an uncontrollable desire for more, in ever-increasing amounts.
3. After its habitual use a sudden total abstinence never causes any derangements of the central nervous system.	3. After its habitual use a sudden total abstinence is likely to cause a serious derangement of the central nervous system.
4. Foods are oxidized slowly in the body.	4. Alcohol is oxidized rapidly in the body.
5. Foods, being useful, are stored in the body.	5. Alcohol, not being useful, is not stored in the body.
6. Foods are the products of constructive activity, activity of protoplasm in the presence of abundant oxygen.	6. Alcohol is a product of decomposition of food in the presence of abundant oxygen.
7. Foods (except meats) are formed in nature for the nourishment of living organisms and are, therefore, inherently wholesome.	7. Alcohol is formed in nature only as an excretion. It is, therefore, in common with all excretions, inherently poisonous.
8. The regular ingestion of food is beneficial to the healthy body, but may be deleterious to the sick.	8. The regular ingestion of alcohol is deleterious to the healthy body, but may be beneficial to the sick (through its drug action).
9. The use of foods is followed by no reaction.	9. The use of alcohol in common with narcotics in general, is followed by a reaction.
10. The use of food is followed by an increase in activity of the muscle cells and brain cells.	10. The use of alcohol is followed by a decrease in the activity of the muscle cells and brain cells.
11. The use of food is followed by an increase in the excretion of carbonic oxid.	11. The use of alcohol is followed by a decrease in the excretion of carbonic oxid.
12. The use of food may be followed by accumulation of fat, notwithstanding increased activity.	12. The use of alcohol is usually followed by an accumulation of fat through decreased activity.
13. The use of food is followed by a rise in body temperature.	13. The use of alcohol may be followed by a fall in body temperature.
14. The use of food strengthens and steadies the muscles.	14. The use of alcohol weakens and unsteadies the muscles.
15. The use of food makes the brain more active and accurate.	15. The use of alcohol makes the brain less active and accurate.

California State Journal of Medicine, San Francisco

April

93 *Value of the Moro Skin Reaction as Compared with Other Methods of Using Tuberculin for Diagnosis in Tuberculosis. M. Rothschild, San Francisco.
94 Treatment of Burns. C. J. Teass, Kennett.
95 Decapsulation of Kidneys. R. Brown, Santa Barbara.
96 Typhoid Fever. E. C. Turner, Sacramento.
97 Tuberculins. F. Lengfeld, San Francisco.
98 Fee Division. R. Brown, Santa Barbara.
99 Medical Milk Commissions and Importance of Pure Milk Supply. W. L. Holt, Santa Barbara.
100 Milk Commission of San Francisco County Medical Society. A. B. Spalding, San Francisco.
101 Persistent Omphalomesenteric Duct with Accessory Pancreas. W. W. Roblee, Riverside.
102 Scrotal Galactocele. H. I. Weil, San Francisco.

93. **The Moro Skin Reaction.**—Rothschild, as a result of comparing the Moro skin reaction with other methods of tuberculin diagnosis in tuberculosis, states that it seems advisable to use in all cases that appear suspicious of tuberculosis, first the Moro ointment for diagnostic purposes, because it is quick, free from any disagreeable general symptoms, free from any danger and reliable. If, in a suspicious case, the reaction should be negative, it is advisable to use an injection of tuberculin, either subcutaneously or intravenously—1/10 of a milligram intravenously, or ⅓ of a milligram subcutaneously is sufficient in the majority of cases.

Ohio State Medical Journal, Columbus

April

103 Headache from a Neurologic Standpoint. W. B. Laffer, Cleveland.
104 Headache of Ocular Origin. R. Sattler, Cincinnati.
105 Headache from Nasal Causes. W. W. Pennell, Mt. Vernon.
106 Infantile Hypertrophic Stenosis of Pylorus. F. E. Bunts, Cleveland.
107 *Achylia Gastrica, with Mechanical Methods of Treatment. J. M. Rector, Columbus.
108 Traumatic Hematoma of Scrotum. A. B. Walker, Canton.
109 Ulcer of Stomach in an Infant of Six Months, Probably Syphilitic. R. M. Shannon, Piqua.

107. **Achylia Gastrica.**—Rector says that most of the acquired cases of achylia gastrica can be relieved, and the gastric secretions restored. If the motor function of the stomach muscle can be restored, the position of the organ and the state of the glandular structures will cause no trouble, so long as the intestinal digestion is undisturbed. The relation of the secreting glands to the muscular structures proves the hopelessness of medicinal treatment. The medicine and thickened mucosa can be removed by the use of tincture of green soap or a solution of silver nitrate. The slight sloughing will reopen the obstructed ducts. Medicines given in the usual way will not reach the mucosa when it is covered with a layer of mucine, and they are useless to counteract fermentation and bacterial growth.

Mississippi Medical Monthly, Vicksburg

April

110 Colles' Fracture. J. T. Walker, Brookhaven.
111 Treatment of Compound Fractures. C. H. Rice, Summit.
112 Puerperal Infections. O. N. Arrington, Brookhaven.
113 Membranous Laryngitis. W. H. Ramsay, Darbun.

Journal of Cutaneous Diseases, New York

April

114 *Cancer *en Cuirasse*. S. Pollitzer, New York.
115 Cheilitis Glandularis Apostematosa. R. L. Sutton, Kansas City, Mo.
116 *Treatment of Verrucæ Plantares. R. L. Sutton, Kansas City, Mo.

117 Blastomycosis Cutis: Report of Two Cases, One Becoming Systemic, with Fatal Termination. E. H. Shields, Cincinnati, O.

114. **Cancer en Cuirasse.**—This is a descriptive paper, in which Ponitzer reports a case, sums up the clinical features, and illustrates it with microscopic sections. The most striking feature of the sections was the comparatively slight evidence of change in the cutis, in which the clinical symptoms would have led one to expect profound changes.

116. **Plantar Warts.**—Sutton reports freezing these troublesome lesions with carbon dioxid snow, with excellent results. A pencil of the substance, a trifle greater in diameter than the depression or "well" in the growth, is applied to the center of the wart for from 30 to 60 seconds, with considerable pressure. The tissues are then allowed to thaw and a second application of 30 seconds' duration is made, a slightly smaller stick being used. A simple dusting powder, such as boric acid, is all the after-treatment required.

Journal Tennessee State Medical Association, Nashville

April

118 Some Accidents and Complications of Ovarian Cyst. W. D. Haggard, Nashville.
119 Why Spectacles Are Worn. G. C. Savage, Nashville.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London

April 3

1 *Treatment of Gastric Ulcer by Immediate Feeding. E. I. Spriggs.
2 *Early Diagnosis and Treatment of Cancer of the Stomach. W. H. White.
3 *Idem. B. G. A. Moynihan.
4 Surgical Treatment of Gastric Ulcer, its Complications and Sequelæ. J. Marnoch.
5 Intussusception Containing a Sarcoma of the Intestinal Wall: Enterectomy. Recovery. C. A. S. Ridout and J. F. Palser.
6 *The Embryologic and Pathologic Significance of Certain Folds in the Anal Canal. J. B. Dawson.

1. **Immediate Feeding in Gastric Ulcer.**—Spriggs recapitulates the essential features of the Lenhartz treatment as follows: (1) Complete rest in bed for four weeks; (2) feeding the patient from the beginning of the attack with small quantities of beaten-up-eggs and milk, the quantities being increased daily; (3) the application of an icebag to the epigastrium; (4) adding to the dietary, boiled rice, mince, and other semi-solid and solid foods after the first week; (5) the administration of bismuth and iron in suitable form. Of these, the complete rest in bed, the bismuth and iron, and the icebag are commonly advised by physicians; but the plan of allowing food to be put into the ulcerated stomach at the beginning of treatment is contrary to the usual practice. He discusses the subject and reviews published cases and statistics, arriving at the following conclusions:

1. The Lenhartz method of treatment is not more dangerous than treatment by nutrient and saline enemas followed by a graduated milk diet. In these particular cases the recurrence of hemorrhage was less frequent, and there were no deaths.
2. The pain suffered by the patient in the course of treatment is less on the Lenhartz diet.
3. The diet gives far more nourishment than can be introduced into the body by nutrient enemas, and is, therefore, more desirable in patients who have frequently been for a long time in a state of semi-starvation, or have suffered a loss of blood, or both.
4. In patients treated by this method rectal injections may be entirely avoided. This is an advantage in a hospital, and a still greater advantage in treating patients at their homes, where rectal injections are not only regarded as extremely unpleasant, but are seldom efficiently administered.

2. **The Early Diagnosis of Gastric Cancer.**—White says that even if the growth can not be removed or secondary deposits render removal undesirable, much benefit often follows gastro-enterostomy if there are signs of pyloric obstruction. He thinks it clear that there are no means of infallibly diagnosing cancer of the stomach in its early stages. But he believes that by carefully considering a number of points we might sometimes arrive at a diagnosis earlier than we do and therefore give the patient the chance of excision which, generally speaking, can do good only in the early stages.

3. **Cancer of the Stomach.**—Moynihan insists on the importance of the anamnesis, discusses the symptoms of cancer, the relation of gastric ulcer to cancer, exploratory incision, indications for operation, and describes briefly the technic thereof. He sums up his knowledge of cancer of the stomach, as revealed to him by a study of the cases which have come to him for surgical treatment, in the following propositions:

1. Cases of cancer of the stomach when examined in regard to previous history may be divided into three groups: (a) Cases, generally acute, in which the symptoms appear suddenly and progress rapidly; the whole history may be confined within a space of four to nine months; (b) cases in which there is a history of one ancient attack, or of repeated attacks, due undoubtedly to the presence of a chronic gastric ulcer; (c) cases in which there is no previous history of gastric ulcer; in some of them a condition of "ulcus carcinomatosum" may be found.
2. The acute cases are not seldom ushered in by an attack of severe hematemesis, with or without melena. It is possible that such copious bleeding is dependent on multiple hemorrhagic erosions.
3. The importance of a history of repeated attacks of indigestion, alike in their origin, course, and termination, can not be exaggerated. Such attacks are due to a chronic gastric ulcer, which at last becomes malignant.
4. Cancer of the stomach, in so far as it depends on a chronic ulcer for its origin, is a preventable disorder. It is probable that two-thirds of the whole number of cases may be so classed.
5. The final attack is distinguished from former attacks by its lingering character, its rebellion against the treatment, dietetic and medicinal, which has proved helpful before, but chiefly by the presence of a profound distaste for food, anemia, and a progressive loss of weight.
6. The chemical examination of stomach contents is of little or no value in so far as early diagnosis of carcinoma of the stomach is concerned. In the later cases, when a possible diagnosis of malignancy is made on the clinical evidence, the results of repeated chemical analyses of the stomach contents afford additional evidence of considerable value.
7. Surgical treatment should be advised in all cases of stomach disorder in which there is obstruction, stasis, or tumor, and in all cases of chronic ulcer; in this way early cases of carcinoma will be found, and radical treatment will be possible.
8. There are no symptoms, and there are no signs which, individually or collectively, permit of an assured diagnosis of cancer of the stomach, in an early stage. In cases in which there is grave suspicion an exploratory operation should be advised. Such operations should be practiced to enable a diagnosis to be made in an early stage, not to confirm an almost certain diagnosis in a hopeless stage.

6. **Folds in the Anal Canal.**—Dawson draws the following conclusions from an investigation of sagittal sections made by him through the pelves of six fetuses of ages varying from two months to full time:

1. There are commonly valve-like folds uniting the upper ends of the columns of Morgagni.
2. These folds seem to represent remnants of the embryonic proctodeal membrane.
3. The epithelium of the proctodeum may be prolonged upward, under these valves, into the rectal submucosa, and these prolongations may persist as diverticula in the adult.
4. When such diverticula are present it is an indication that the merging into one of rectum and proctodeum has been imperfect to a greater or lesser extent.

The pathologic significance of these upper valves and the sinuses beneath consists in:

1. The occurrence of inflammation in and around them which produces symptoms of painful defecation.
2. The possible part they may play in the formation of submucous fistula.
3. The possibility that the occurrence of inflammatory mischief at a spot where there is partially buried epithelium may originate carcinoma of the squamous variety, such as is found in the anal canal.

Lancet, London

April 3

7 *Some Disorders of Cerebral Circulation and Their Clinical Manifestations. A. E. Russell.
8 Modern Methods of Treatment of Some Common Skin Diseases. J. L. Bunch.
9 *Clinical Value of the Antitryptic Index of the Blood in Tuberculosis. F. L. Golla.
10 Spontaneous Cure of Thoracic Aneurism. Sir T. Oliver.
11 Amputation Through Hip Joint in which Hemorrhage was Controlled by Intraperitoneal Compression of the Common Iliac Artery. E. W. Roughton.
12 Use of Intraperitoneal Compression of the Common Iliac Artery During Amputation Through Hip Joint. T. P. Legg.
13 Pemphigus in a Nonagenarian; Recovery. J. G. Glover.
14 Juxta-Epiphyseal Inflammation of Upper End of Humerus. A. F. Messiter.
15 Graduated Rest in Treatment of Pulmonary Tuberculosis. E. E. Prest.

7. **Disorders of the Cerebral Circulation.**—In the first Goulstonian lecture Russell maintains that the fundamental factor underlying both the ordinary faint and the epileptic fit is cerebral anemia. It follows further that the difference between the two is one of degree rather than of kind. We have some clinical evidence of this in the suddenness of some

faints, and in the conversion of faints into fits. The difference he holds to be due to the difference in the rate of development of the cerebral anemia. In the ordinary faint the cerebral circulation slowly diminishes *pari passu* with the falling blood pressure. In the fit there is a sudden cessation of the circulation. Similarly the circulation slowly improves in the faint; in the fit it probably returns with greater rapidity. The fainting proclivity is commonly associated with other evidences of cardiac and vasomotor instability and an exciting cause is usually present. In epilepsy, the ordinary evidences of vasomotor instability are not so obvious and exciting causes are commonly absent. It must suffice for the present to bring forward the above evidence of cardiac inhibition, however scanty, and to examine to what extent it will explain the various manifestations of epilepsy.

9. **The Antitryptic Power of Blood Serum in Tuberculosis.**—Golla describes experiments to ascertain the antitryptic power of blood serum in tuberculosis, using the method of electrical conductivity, as introduced by Victor Henri and familiarized by the work of Bayliss. The results of using this method have been encouraging. He describes the actual technic employed. While the rise of antitryptic index in the cases experimented on has no direct relation to the temperature from a clinical viewpoint, a consideration of the cases gave the impression that the antitryptic index furnishes some indication of the degree of tuberculous intoxication. In the majority of cases that showed signs of progressive improvement, the antitryptic index was normal or showed only a slight rise. In those cases in which the disease was progressing, the index was much raised. The material so far at disposal does not permit the discussion of the significance of the variations of the antitryptic power of the blood.

Medical Press and Circular, London

March 31

16 Treatment of Local Tuberculous Lesions by Injections. A. Calot.
17 Death Certification and Coroners' Inquests. F. W. Lowndes.
18 Prognosis in Valvular Disease of the Heart. Sir J. F. H. Broadbent.

Clinical Journal, London

March 31

19 *Venesection. W. H. White.
20 Gastric Hemorrhage. C. Bolton.
21 Hemorrhage into the Testicle. V. W. Low.

19. **Venesection.**—White refers to the fact that the reaction against bleeding which occurred in the fifties, became so exaggerated that 20 or 30 years ago a student might have passed through his entire career without seeing bleeding performed. He quotes many instances to illustrate the abuse of the remedy which occasioned its neglect. The great majority of patients for whom bleeding is desirable are people in whom the right side of the heart is overgorged with blood, most frequently as a result of mitral disease, bronchitis or pneumonia. He quotes Wilks' graphic description of the patient whose condition calls for bleeding as follows:

> You see your patient sitting up in bed, the face, tongue and lips blue or purple, and the jugular veins starting out of the neck and often visibly pulsating, the heart beating quickly and perhaps a tricuspid bruit, indicating the gorged right heart and obstructed lungs; the veins in the body are full to bursting.

As to quantity there is no rule, but the average amount is from 10 to 15 ounces. The common idea that a small pulse is a contraindication he negatives by pointing out that such small pulse is to be interpreted as signifying that so much blood is dammed back in the venous system that not much of it gets on to the arterial system, so that the pulse is naturally small. Consequently, he regards it as a good reason for bleeding. A cardiac patient who does not respond to digitalis when in the livid condition will respond to it after bleeding. White describes instances of various conditions in which bleeding gave prompt and noticeable relief.

Archives des Maladies du Cœur, etc., Paris

March, II, No. 3, pp. 129-192

22 Independence of the Globulins in respect to the Blood Corpuscles. (Indépendance des globulins par rapport aux globules rouges et blancs du sang.) C. Achard and Aynaud.
23 *Operative Treatment of Thrombosis of Brachial Artery. (Artérite et thrombose de l'artère humérale; artériotomie, etc.) P. Lecène.
24 *Recurring "Writer's Cramp." (Claudication intermittente du bras d'origine artérielle.) M. de Lepinay.
25 Lipoma in the Heart. (Lipome du cœur.) H. Verliac and L. Morel.

23. **Operative Treatment of Thrombosis of the Brachial Artery.**—In the case reported by Lecène he was able to make a longitudinal incision in the artery, to extract the thrombus and suture the vessel again without reducing the size of the vessel and without inducing any signs of inflammation at the point. The patient was a man of 55, tuberculous, with signs of impending gangrene from arteritis. He succumbed not long after the operation to pneumonia and the progressing gangrene; the artery had filled up again with a clot. The case shows that operations for thrombosis from arteritis have little prospects of success. The trouble is the result of simultaneous obliteration not only of the main trunk, but of the collateral arteries by the progressive thrombosis—the arteritis is scarcely ever restricted to a single vessel or segment of one, and the surgeon is disarmed in the presence of these multiple small obliterations.

24. **Intermittent Claudication of the Arm.**—Lépinay's case demonstrates that obliterating endarteritis is not the only cause liable to induce this disturbance. It may result from aortic or intracardiac disturbances interfering with the blood supply to the arm.

Bulletin de l'Académie de Médecine, Paris

March 16, LXXIII, No. 11, pp. 323-346

26 *Precipitation Reaction in Epidemic Cerebrospinal Meningitis. H. Vincent.
27 Official Medical Assistance for the Natives in French West Africa. M. Kermorgant.

26. **Precipitation Reaction in Epidemic Cerebrospinal Meningitis.**—Vincent states that the cerebrospinal fluid gives a precipitating reaction when added to an agglutinating serum in case of meningococcus meningitis. This precipitation test was constantly negative in the controls and constantly positive in the fluid from patients with epidemic meningitis in which the intracellular diplococcus could be cultivated from the fluid. He centrifugates the cerebrospinal fluid until the supernatant fluid is entirely clear and then adds one drop of specific agglutinating serum to 100 and to 50 drops of the fluid. After eight or twelve hours the fluid in the tube becomes turbid in the meningococcus cases, while it remains limpid in all cases of meningitis of other origin and in health.

Presse Médicale, Paris

March 24, XVII, No. 24, pp. 209-216

28 *Reactions on the Part of the Meninges in Various Infections in the Young. (Réactions méningées dans les érythèmes chez les enfants.) Hutinel.
29 *Causes of Orthostatic Oliguria and Albuminuria. G. H. Lemoine and G. Linossier.
30 *Ferrier's Antiacid and Alkaline Treatment of Tuberculosis. (Le tuberculeux et la méthode "recalcifiante" de P. Ferrier.) M. Letulle.

March 27, No. 25, pp. 217-224

31 Immediate and Remote Results of Arteriovenous Sutures. A. Frouin.
32 Boxers' Fracture. (Fracture de l'extrémité inférieure du premier métacarpien.) O. Lenoir.
33 Antipneumococcus Powder. (Une immunisine antipneumococcique.) L. Bertrand.

28. **Reaction of the Meninges in Various Infections.**—Hutinel has examined the cerebrospinal fluid in 72 children with various rashes, scarlet fever, measles, etc. The findings show that the meninges usually react to various infections and intoxications, at least in the young, and that there is nothing specific in these reactions unless they are very pronounced.

29. **The Causes of Orthostatic Albuminuria.**—Lemoine explains this condition as the result of sluggishness in the circulation through the kidneys in the standing position plus some functional insufficiency in the organ, some special sensitiveness, congenital or acquired, to injurious influences.

30. **Antiacid and Alkaline Treatment of Tuberculosis.**—Letulle used to be very skeptical in regard to Ferrier's views in respect to tuberculosis, namely, that the tubercle bacillus could not thrive except in an acid medium. Ferrier founded a

free dispensary two years ago to apply his views in practice, and Letulle has been visiting the dispensary from time to time to watch the progress of the patients under this "recalcifying method." He has thus supervised a large number of the tuberculous of both sexes, belonging to the working classes, and states that all have shown marked improvement, while they have been able to keep at work, free from fever, and proud of being able to earn their living. All this is in marked contrast to the dreary aspect of the tuberculous in institutions, who are awaiting the end in idleness and silent gloom. Ferrier's principle is to prevent the introduction and formation of acid in the organism. Wine and spirits of all kinds are forbidden, also butter, fat and sauces, lemons, oranges, old cheese and vinegar in any form. The meals should not be close together, and not more than 200 or 300 gm. of bread should be taken during the day, and 300 or 400 gm. of meat; the main reliance should be potatoes, carrots, peas, eggs, fresh fish and cooked fruits, with a glass of alkaline mineral water early in the morning and half an hour before each meal. The patient also takes three powders during the day, each containing 0.5 gm. calcium carbonate; 0.2 gm. tribasic calcium phosphate, and 0.05 gm. calcined magnesia. He is also told to work according as he has strength and to sleep as well as he can. Letulle adds that the future will decide the therapeutic value of this recalcifying method, but so far it has rendered great services both to the individual and to the community.

Revue de Chirurgie, Paris

March, XXIX, No. 3, pp. 445-659

34 *Primary Tuberculosis of Ileocecal Glands. (Tuberculose primitive des ganglions iléo-cæcaux.) Vautrin.
35 *Cancer of the Bile Ducts. E. Quénu.
36 *Ulcer Developing in Hour-Glass Stomach. (Ulcère en évolution et biloculation gastrique.) X. Delore and H. Alamartine.
37 Surgical Forms of Tuberculosis of the Stomach. (Les formes chirurgicales de la tuberculose de l'estomac.) R. Leriche and E. Mouriquand. Commenced in No. 2.
38 *Subphrenic Abscess. (Les abcès sous-phréniques.) P. Guibal. Commenced in No. 1.

34. **Primary Tuberculosis of Ileocecal Glands.**—Vautrin discusses the tuberculous process in the mesenteric lymph nodes at the junction of the small intestine and cecum. It is more common in the young and especially in girls. He describes three cases to sustain his assumption that this may be a primary tuberculous process, the anatomic conditions favoring localization of the tuberculous process in this region with or without involvement of the glands. The abundance of follicles here and the network of absorbing lymphatics make this one of the most important lymphoid organs. The condition here resembles those in the tonsil and the long sojourn of matters at this point promotes infection. Many children are supposed to have torpid appendicitis from the disturbance caused by a tuberculous process here. This is proved by the long duration of the disturbance and the slow subsidence of the swollen ileocecal glands. From this point the bacilli may invade any part of the organism.

35. **Cancer of the Bile Passages.**—Quénu discusses the benefits from palliative operations and the causes for postoperative disturbances. He is convinced that fatalities are more frequent than generally supposed after a simple exploratory laparotomy for chronic jaundice with cancer. Cotte collected from the literature 91 cases of cancer of the biliary passages, and in 6 intervention was limited to an exploratory laparotomy; in the 5 cases in which the outcome is known the patients all succumbed to collapse or hemorrhage, and Quénu himself has had 2 fatalities from this cause and knows of 3 others. In 31 cases in which cholecystostomy was done, 9 of the patients survived, the others succumbing to hemorrhage before the eighteenth day. The survivals were only for a few weeks up to six months. Quénu has done this operation himself twice and one patient succumbed to hemorrhage in two weeks, the other to cachexia in four weeks. In 28 cases in which an anastomosis was made, 19 of the patients died and the others survived for a few months. Study of this material shows that severe jaundice or cholemic hemorrhage is observed only with retention of bile, and secondary hemorrhage does not occur after operations for cancer of the biliary passages unless there has been retention of bile. Retention from gallstones is seldom followed by secondary hemorrhage. The hemorrhagic complication is evidently the result of the association of cancer and jaundice, and seldom occurs without the two. The addition of the cancer toxin to the toxic products which should have been eliminated by the liver and kidney renders the organism more susceptible to the action of the anesthetic. Chloroform, besides, has a direct hemolytic action. It may be advisable to make a preliminary injection of calcium chlorid or of serum, as Weil suggests, to ward off this tendency to secondary hemorrhage.

36. **Hour-Glass Stomach Due to Developing Ulcer.**—Delore and Alamartine report three cases in which the stomach became constricted under the influence of a rebellious ulcer, and they compare with these cases 27 others which they have found in the literature. The characteristic lesions, the symptomatology and the treatment required by this variety of hour-glass stomach form a pathologic entity which the clinician should know as well as the surgeon. The troubles develop in two phases; first, a long period of digestive disturbances, with ups and downs. The symptomatic triad includes pain, vomiting and, more rarely, hematemesis. The dyspepsia becomes more and more intense and the general condition grows worse until surgical treatment seems to be the only resource. This hour-glass stomach due to rebellious ulcer is fatal without surgical treatment. Perforation of the stomach is the most frequent outcome, but it may occur without symptoms owing to the adherence of the stomach wall to some adjacent organ. The necessity for gastrectomy is beyond question, and they discuss the best technic, with illustrations, citing statistics to show that mediogastric resection is the best means of cure. The mortality in 15 such operations has been only 6.6 per cent. The two patients on whom they have operated in this way are completely and radically cured to date, six and eighteen months since the operation. Late statistics show a mortality of 14 per cent. in 35 cases and confirm the durable benefits derived.

38. **Subphrenic Abscess.**—Guibal concludes this long illustrated article on the various forms of subphrenic abscess with a discussion of the indications and results of operative treatment. One of the main causes for failure is the non-recognition of the abscess when conditions are found otherwise deemed sufficient to explain the symptoms observed. Jeannel made a gastroenterostomy to remedy disturbances from stenosis of the pylorus, overlooking a subphrenic abscess which was found at autopsy in the angle between the ribs and the ensiform process. In two or three other cases a pleural effusion and appendicitic abscess were drained, but autopsy revealed an unsuspected subphrenic abscess of gastric origin. The most common cause of postoperative fatalities is the existence of a second, unsuspected abscess; such mistakes are not always avoidable. Tuberculous abscesses generally prove fatal. Other causes of death were coinciding myocarditis, peritonitis by propagation or perforation of the abscess and suppurative cachexia three months after the operation. Rochard has reported a case of fatal intoxication from mercuric chlorid used to rinse out the cavity repeatedly. The multiplicity and extent of the lesions encountered in so many cases emphasize the importance of early diagnosis and prompt surgical intervention in every case of subphrenic abscess.

Semaine Médicale, Paris

March 31, XXIX, No. 14, pp. 145-156

39 *The Work of the Imperial Cancer Research Fund. R. de Bovis.

39. **The Imperial Cancer Research Fund.**—de Bovis reviews what has been accomplished by the British Cancer Research Fund workers, asserting that while the results of the experiments undertaken do not seem to have materially advanced our knowledge of cancer, yet they constitute on the whole immense progress. They entirely sweep away the theories more or less generally accepted in regard to contagion, parasitic origin and toxicity of cancer, and they show conclusively

that the solution of the cancer problem must be sought in the cancer cell itself. The British workers have merely worked along lines already outlined, but they have accumulated such evidence as to establish certain facts beyond question.

Beiträge zur Klinik der Tuberkulose, Würzburg

XII, No. 2, pp. 195-258. Last indexed April 3, p. 1148

40 Roentgen-Ray Examination in Diagnosis of Incipient Pulmonary Tuberculosis. (Zur Roentgendiagnostik bei Anfangstuberkulose der Lungen.) H. Rieder.
41 Percutaneous or Salve Reaction to Tuberculin. (Klinische Ergebnisse der perkutanen Tuberkulinreaktion.) E. Moro.

Berliner klinische Wochenschrift

March 15, XLVI, No. 11, pp. 477-528

42 *"Vein Anesthesia." (Ueber Venenanästhesie.) A. Bier.
43 Hematoma of the Vulva as Obstacle to Delivery. (Haematoma vulvae als Geburtshindernis.) W. Liepmann.
44 Allowing Patients to Get up Early after Laparotomies. (Das frühe Aufstehen nach Laparotomien.) C. Hartog.
45 Treatment of Placenta Prævia. G. Binder.
46 Mechanism of Action of Atoxyl. (Wirkungsmechanismus des Atoxyls.) W. Roehl.
47 Criticism of Bauer's Modification of Serodiagnosis of Syphilis. (Einige Bedenken gegen die Bauer'sche Modifikation der Wassermann'schen Reaktion.) C. Stern.
48 Latest Methods of Treating Gonorrheal Epididymitis and Favorable Results of Puncture Treatment. (Die neueren Behandlungsmethoden der Epididymitis gonorrhoica.) Ernst. Commenced in No. 10.

42. **Vein Anesthesia.**—Bier has named this new method *Venenanästhesie*, and here devotes eleven pages to a complete description of the technic and of his experiences to date with it in 134 operations, including 10 amputations, 37 resections of joints, 12 sutures of bones, 7 extirpations of varices, etc. The results were perfect in 115 cases and satisfactory in 14, only 5 of the total 134 patients experiencing pain. The technic was described in THE JOURNAL, Sept. 19, 1908, page 1040. The general circulation is cut off from the region to be operated on and then the tissues are anesthetized in this region by diffusion of the anesthetic which is injected into a vein. The anesthetic may be removed afterward by flushing the vessels in the region with salt solution, if this is deemed necessary. No other method of local anesthesia gives such perfect results, he declares. The constriction is applied with two elastic bands, the same band used for constriction hy-

"Vein anesthesia." Anesthetic is injected at +.

peremia, six feet long for the arm and ten feet for the thigh, wound around to cover a broad area above and below the field to be operated on, after the blood has first been expelled from the limb by winding from below upward. It is necessary to refrain from causing the least pain at the outset, as this destroys the confidence of the patient. He would refrain from the vein anesthesia in case of senile or diabetic gangrene, but otherwise thinks this technic has no more contraindications than any form of local anesthesia. He has never witnessed any untoward by-effects of any consequence, and concludes his communication with the assertion that this form of anesthesia represents a great advance; it throws all other methods of local anesthesia into the shade, he believes, although he advocates it only when the ordinary measures for local anesthesia are inadequate. Its special field is for major operations on the limbs. It supplants spinal anesthesia for all such operations, as it is simpler and harmless.

Deutsche medizinische Wochenschrift, Berlin

March 25, XXXV, No. 12, pp. 513-560

49 *Treatment of Malaria. Nocht.
50 *Germ Causing Trachoma. (Erreger des Trachoms.) Greeff.
51 Purin Metabolism in Gout and Negative Results of Attempts to Influence it. (Purinstoffwechsel bei Gichtkranken.) E. Frank and C. Funk.
52 Quantitative Test for Trypsin. (Nachweis von Trypsin und eine einfache Methode zu dessen quantitativer Bestimmung.) R. Goldschmidt.
53 *Treatment of Lung and Heart Affections by Application of Heat. (Behandlung von Lungen- und Herzkrankheiten mit Hitze.) A. Heermann.
54 Experimental Research on Mode of Action of Hyperemic Treatment. (Zur Wirkungsweise der Bierschen Stauungstherapie.) Y. Shimodaira.
55 *Isolated Stiffening of Abdominal Wall after Traumatic Injury of Spine. (Isolierte Bauchdeckenspannung nach Wirbeltrauma.) E. W. Baum.
56 *Torsion of the Omentum and Incarceration of Hernia. (Netztorsion und Brucheinklemmung.) A. Brüning.
57 Treatment of Backward Dislocation of the Ulna and its Complications. (Die Luxatio cubiti posterior in ihrer Beziehung zur Fraktur des Processus coronoideus ulnae, zum Mechanismus der Reposition und zur Frage der Knochenneubildung im Ellbogengelenk.) Schwenk.
58 *Duodenal Ulcers in Infantile Marasmus. (Duodenalgeschwüre bei der Pädatrophie.) H. F. J. Helmholz.

49. **Treatment of Malaria.**—Nocht comments on the confirmation of clinical experiences by the discoveries of Schaudinn in regard to the sexual development of the malaria parasites, especially his findings in respect to the adult forms which are not affected by quinin. These forms are the long sought latent form between the initial infection and relapses. Nocht presents arguments and describes clinical experiences to prove the superiority of giving quinin in fractional doses instead of in one single dose. He follows the usual rule of giving 1 gm. (15 grains) every day for six or seven days, then suspending it for three days, then for four days, five days and finally seven days, with three quinin days of 1 gm. each interposed between each interval. More of the quinin is utilized when the 1 gm. is given in five doses during the day. He commences as soon as the diagnosis is made, without regard to impending or existing attacks, and his experience with 376 patients treated on these principles has been extremely favorable. He warns that errors in diet, chilling and over-exertion should be carefully avoided as liable to bring on relapses.

50. **The Causal Agent of Trachoma.**—Greeff's announcement of the discovery of the micro-organism responsible for trachoma was mentioned in THE JOURNAL, April 10, page 1192. He here describes the staining technic with illustrations of the germ. See also Berlin Letter, page 1345.

53. **Treatment of Lung and Heart Affections with Heat.**—Heermann reports success in treatment of heart and lung affections by applying heat to the legs to draw the blood away from the congested area. In more than 100 cases the favorable effect of this measure was striking. No effort was made to induce sweating, although this sometimes occurred. He has entirely discarded local application of ice, finding that heat answers the same purpose much more effectually. In one of the cases described a patient with croupous pneumonia was extremely cyanotic, with much dyspnea, respiration 56 and pulse 150. Application of a hot-air apparatus over the lower part of the body up to the stomach caused a remarkable change for the better. In the course of an hour all the congested blood had been drawn away from the upper part of the body. The procedure was repeated at night and the same effect was observed. The benefit on the heart action was so regular and so striking in the lung affections that it encouraged him to try the same measure in congestion from cardiac defects, and he states that it was wonderful to see the improvement in extreme cyanosis with failing cardiac compensation, no effect being obtained from digitalis; all the symptoms of congestion subsided in a few minutes after the hot-air apparatus had been applied to the lower part of the body. Of course the benefit is only symptomatic, but he found that local application of heat to the heart has the same effect in rheumatic troubles as application of heat to the joints. In one obstinate case of pericarditis without effusion he applied a hot water bottle to the heart with immediate improvement. He now applies local heat to the heart in all rheumatic affections once or twice a day for from ten to forty-five minutes at a time. In no instance has there been the least intolerance on the part of the heart; and the relief was so marked that the patients clamored for it. The ice bag should not be used until local heat has been given a trial as it is impossible to determine beforehand the cases in which cold or hot applications will give most relief.

55. **Isolated Rigidity of the Abdominal Walls After Injury of the Spine.**—Baum reports three cases to show that the persisting tetanic stiffening of the abdominal wall which has hitherto been regarded as pathognomonic of abdominal contusion may also occur as an isolated symptom of injury of the spine. It is evidently a sign of irritation of the nerve roots.

56. **Torsion of the Omentum.**—Brüning remarks that torsion of the omentum with incarceration of an inguinal hernia on the right side is generally diagnosed as appendicitis. It requires immediate operative intervention and the possibility of this combination should be borne in mind.

58. **Duodenal Ulcer in Infants.**—Helmholz states that he found duodenal ulcers in eight out of sixteen cadavers of infants who had succumbed to marasmus. He describes these cases in detail with a ninth that terminated in recovery.

Medizinische Klinik, Berlin

March 21, V, No. 12, pp. 419-456

59 *Importance of Serodiagnosis of Syphilis for Treatment. (Bedeutung der Wassermannschen Serumreaktion für die Diagnostik und Behandlung der Syphilis.) R. Ledermann.
60 *Non-Tuberculous Catarrhal Apical Processes. (Ueber nichttuberkulöse Spitzenkatarrhe.) A. Wolff-Eisner.
61 Pathologic Anatomy of Hematogenous Diffuse Affections of the Kidneys. (Ueber den gegenwärtigen Stand unserer Kenntnis der hämatogenen diffusen Nierenerkrankungen nach pathologisch-anatomischen Gesichtspunkten.) L. Jores.
62 *Mechanism and Treatment of Flatfoot Disturbances. (Ueber Insuffizienz des Fusses.) W. Becker.
63 Treatment of Eczema with Ultraviolet Rays. (Erfolge der Behandlung des Ekzems Mittels Uviollicht.) O. Scheuer.
64 Dietetics for Children. (Zur Diätetik des Kindesalters.) H. Lungwitz.
65 Balneologic Treatment of Respiratory Affections and Relations between Affections of the Upper and Lower Air Passages. (Behandlung von Krankheiten der Luftwege in Bad Salzbrunn unter besonderer Berücksichtigung der Beziehungen der Krankheiten der oberen zu denen der tieferen Wege.) G. Kelbling.
66 Pathogenesis of Chronic Habitual Constipation. (Zur Pathogenese der chronischen habituellen Obstipation.) Z. Tomaszewski.

59. **Serodiagnosis of Syphilis.**—Ledermann has applied the Wassermann test in 550 cases as he relates in detail; 81 per cent. of patients in the latent stage gave a positive reaction when they had not taken treatment, while the reaction was positive in 73.7 per cent. of those who had had one or two courses of mercurial treatment, and in only 47.7 per cent. of those who had taken four or more courses. In syphilis of the nervous system positive reactions were obtained in 100 per cent., although the interval ranged from four to twenty-two years. Only 3 of the 107 patients in this class had had from three to five courses of mercurial treatment, and the majority were untreated. The reaction was positive in 16 children with inherited syphilis. He calls attention to the vast importance of this serum test in balneologic practice. Patients apply to the physician at the health resort with a vague history and obscure array of symptoms, suggesting liver and heart affections and nervous disturbances. The physician may suspect syphilis but nothing tangible can be discovered. Serodiagnosis here fills a long-felt want and the health resorts should be equipped for the serum test as an indispensable preliminary to effectual treatment of the visiting hosts.

60. **Non-tuberculous Apical Catarrh.**—Wolff-Eisner presents evidence to prove the existence of catarrhal affections of the apices of non-tuberculous nature, which may be differentiated by the local tuberculin reactions. He believes that many patients now under treatment in sanatoria for the tuberculous are in reality suffering merely from a non-tuberculous apical catarrh. The affection may be the result of direct inhalation of dust or of atelectasis from production of a vacuum during inspiration from obstruction in the nose from some valve-like displacement of the walls. In a case described, a young man was sent to the sanatorium as he said he had night sweats and presented the physical signs of an apical process. But the ocular, cutaneous and subcutaneous tuberculin tests gave negative findings and his stay in the sanatorium exposed him to true tuberculous infection. The case teaches that the biologic and the clinical methods are not antagonistic but supplement each other, throwing unwonted light on diagnosis, prognosis and treatment. When tuberculosis is unmistakable, negative findings with the tuberculin tests indicate an absolutely unfavorable prognosis, but negative findings in these cases of a simple catarrhal process in the apices should reassure as to the absence of tuberculosis. In 12 other cases he was able to affirm with certainty the absence of tuberculosis from the negative findings in patients suffering from tuberculophobia. He adds that the sickness insurance companies go to great expense to cure persons of tuberculosis who are not tuberculous at all, as could be readily learned by systematic tuberculin tests.

62. **Flatfoot Disturbances.**—Becker states that the three cardinal symptoms of insufficiency of the foot are that long standing is more painful than walking; that a firm, tight shoe gives more relief than an easy house shoe, and that the pains vanish as one sits or lies and sleep is undisturbed. Treatment should aim to support the foot from below, on the inside, thus preventing the weight of the body from pulling on the ligaments and the bones. The metatarsus should be held as still as possible and the insufficiency of the muscles should be combated by massage and orthopedic exercises. He describes the application of these principles to the various forms of insufficiency of the foot, and urges that the feet of children should not be deformed by incorrectly made shoes; the inside of the sole should be on a straight line from the heel to the tip of the great toe.

Münchener medizinische Wochenschrift

March 25, LVI, No. 12, pp. 593-640

67 *Treatment of Fractures. (Behandlung der Knochenbrüche.) E. Lexer.
68 Causes of Failure of Antidiphtheria Serum. (Weshalb versagt das Behringsche Diphtherie-Heilserum in gewissen Fällen?) A. Uffenheimer.
69 *Sterile Serous Pleural Effusions with Empyema in the Pleura and Abscess in the Lung. (Sterile seröse Pleuraergüsse bei Pleuraempyemen und Lungenabszessen.) H. Köniyer.
70 *Simple Method of Determining Diastolic Blood Pressure. (Eine Bestimmungsmethode des diastolischen Blutdruckes.) Ehret.
71 *Roentgen-Ray Treatment of Cancer of Upper Air Passages. (Zur Röntgenbehandlung maligner Neoplasmen der oberen Luftwege.) Mader.
72 Lavage of the Stomach. (Technik und Indikationen des Magenausspülens.) Agéron.
73 Favorable Influence of Arsenic Mineral Waters on Growth of Rabbits. (Einfluss der Durkheimer Maxquelle auf das Wachstum von Kaninchen.) C. Bachem.
74 Wire-Strengthened Gauze for Plaster Casts. (Eine neue Drahtgipsbinde.) Lunckenbein.
75 *Bradycardia and the Adams-Stokes Syndrome. L. Huismans. Commenced in No. 11.

67. **Treatment of Fractures.**—Lexer treats certain fractures of the radius by bandaging them in overcorrection in such a way that certain movements are still possible although the

movements which might undo the reduction of the fracture are absolutely prevented. He gives an illustration of his method of bandaging as applied in more than 100 cases of typical fracture of the radius. It avoids all the disadvantages of the immobilizing bandage as also those of no bandage at all. The patient is unable to make either active or passive movements which might dislocate the reduced stumps and yet he can move his fingers freely and also to a slight extent his wrist. The simple flannel or adhesive plaster bandage must be taken off every two days and the parts massaged by the

physician and given a warm bath. After the first week a simple spica is all that is necessary, and by the end of the second week no further treatment is required. The physician should inspect the arm every second day. He has applied this principle of immobilization without splint or plaster while retaining the possibility of certain active movements in twenty cases of fracture of the malleolus. The rapid anatomic and functional healing should encourage others to try this method. He thinks that it deserves to rank with extension, operative restoration of continuity and removable casts as a typical method of treating certain forms of fracture.

69. **Sterile Effusion in the Pleura with Suppuration in the Vicinity.**—Köniğer relates some experiences in which a putrid abscess in the lung or pleural empyema coexisted with a sterile serous effusion in the pleura. Not being in communication with the infectious focus, the effusion is free from bacteria but it contains numerous polynuclear leucocytes and lymphocytes, the majority being of normal shape. The effusion in these cases is probably a reaction to the influence of toxins from the suppurating process. The physician should not be misled by this harmless appearing effusion, to which Königer applies the name of "cloak effusion"—*Mantelergusse* —as it surrounds and cloaks the main lesion. Microscopic examination will suggest the presence of an infectious focus in the vicinity from the cell content of the fluid.

70. **Measurement of the Diastolic Blood Pressure.**—Ehret applies the Recklinghausen cuff and as the pressure in the cuff is slowly increased he palpates the radial artery at the lower edge of the cuff. The pulse shows a sudden change as the cuff induces complete collapse of the wall of the artery underneath. Numerous tests have shown that the pressure of the cuff under which the phenomenon occurs corresponds to the diastolic pressure.

71. **Roentgen Treatment of the Upper Air Passages.**—Mader has devised a Roentgen lamp which is introduced into the throat to expose to the direct action of the rays malignant neoplasms of the upper air passages. He reports satisfactory results from this treatment in several cases. One patient with carcinoma in the lower part of the pharynx was cured by this treatment over three years ago, but lately showed signs of recurrence which yielded again to the same form of Roentgen treatment.

75. **The Adams-Stokes Syndrome.**—Huismans is convinced that the brain cortex plays an important part in the Adams-Stokes syndrome. In one of the eight cases described attacks are brought on by emotional stress.

Wiener klinische Wochenschrift, Vienna

March 25, XXII, No. 12, pp. 402-438

76 *Organotherapy of Tendency to Cataract. (Lassen sich Linsentrübungen organtherapeutisch beeinflussen?) R. Possek.
77 *Diagnostic Importance of Examination of Blood in Trichinosis. F. Gaisböck.
78 Transition of Night Frights into Epileptic Seizures. (Uebergänge des nächtlichen Aufschreckens zum epileptischen Anfall.) R. Stern.

76. **Organotherapy of Cataract.**—Possek has been experimenting with rabbits, injecting naphthalin to induce the production of cataract and then controlling this tendency by injection of lens substance. The results confirm Römer's announcement in regard to the possibility of specific organotherapy of incipient senile cataract.

77. **Diagnosis of Trichinosis.**—Gaisböck reports two cases and expatiates on the importance of increased numbers of eosinophilic cells in the circulating blood as characteristic of trichinosis. This, alone, is sufficient, he asserts, to differentiate the disease, and he is convinced that if the blood were examined more systematically many cases of obscure typhoid and rheumatoid pains in the muscles would be traced to trichinæ.

Zentralblatt für Chirurgie, Leipsic

March 20, XXXVI, No. 12, pp. 409-448

79 *Habitual Dislocation of the Shoulder. (Zur Frage der habituellen Schultergelenksluxation.) R. Wilmanns.
80 Sterilizer for Laparotomy Materials. (Apparat zur Sterilisierung und Erwärmung bzw. Warmhaltung von Tupfern, Kompressen usw. bei Laparotomien.) E. Szili.

79. **Habitual Dislocation of the Shoulder.**—Wilmanns comments on Dahlgren's report of his success in 25 cases in which the capsule was taken up to make it smaller. Wilmanns' own experience has shown that this making the capsule smaller answers the desired purpose completely, even when there are other complications. Complete and permanent success follows the simple measure of reducing the size of the capsule and it is unnecessary to act directly on the other parts of the joint.

Zentralblatt für Gynäkologie, Leipsic

March 20, XXXIII, No. 12, pp. 409-440

81 *Suprarenal Preparations in Cesarean Section. (Adrenalin beim Kaiserschnitt.) M. Bogdanovics.
82 Technic of Dilatation with Tents. (Zur Technik der Laminariadilatation.) O. Piering.
83 Cicatricial Stenosis of the Vagina after Protracted Spontaneous Delivery. (Fall von schwerster Vaginalstenose nach Spontanpartus.) S. Samson.

81. **Suprarenal Preparations in Cesarean Section.**—Bogdanovics reports a case to show the influence of direct injection of a small amount of a suprarenal preparation in the wall of the uterus. As the uterus becomes anemic it begins at once to contract vigorously. This striking action of suprarenal preparations on the puerperal uterus is exceptionally useful in Cesarean section when labor has not begun or is abnormally weak.

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. A selection will be made for review in the interests of our readers and as space permits.

ATLAS OF THE EXTERNAL DISEASES OF THE EYE, Including a brief Treatise on the Pathology and Treatment. By Prof. Dr. O. Haab of Zürich. Edition 3, Edited by G. E. de Schweinitz, A.M., M.D., Professor of Ophthalmology in the University of Pennsylvania and Ophthalmic Surgeon to the University Hospital. Cloth. Pp. 244, with illustrations. Price, $3. Philadelphia: W. B. Saunders Co., 1909.

CAUSES OF DISABILITY AS APPLIED UNDER ACCIDENT AND HEALTH INSURANCE POLICIES. Designed for the Use of Insurance and Fraternal Examiners, General Practitioners and Students of Medicine, Attorneys and Corporations. By Charles Hamilton Harbaugh, M.D., Medical Director American Assurance Company. Cloth. Pp. 650, with illustrations. Price, $6. New York: The Spectator Co.

ATLAS AND EPITOME OF OPHTHALMOSCOPY AND OPHTHALMOSCOPIC DIAGNOSIS. By Prof. Dr. O. Haab of Zürich. Second American Edition. Edited by G. E. de Schweinitz, A.M., M.D., Professor of Ophthalmology in the University of Pennsylvania and Ophthalmic Surgeon to the University Hospital. Cloth. Pp. 94, with illustrations. Price, $3. Philadelphia: W. B. Saunders Co., 1909.

REPORT OF COMMITTEE ON SOCIAL BETTERMENT. By George M. Kober, M.D., LL.D., Chairman of Committee. Professor of Hygiene, School of Medicine, Georgetown University. Paper. Pp. 281. Published by The President's Homes Commission, Washington, D. C., 1908.

REPORT OF COMMITTEE ON IMPROVEMENT OF EXISTING HOUSES AND ELIMINATION OF INSANITARY AND ALLEY HOUSES. By William H. Baldwin, Chairman of the Committee. Paper. Pp. 23. President's Homes Commission, Washington, D. C., 1908.

INFANT FEEDING. By J. S. Fowler, M.D., F.R.C.P., Physician to the Royal Hospital for Sick Children, Edinburgh. Cloth. Pp. 230, with illustrations. Price, $1.50. New York: Oxford University Press, 1909.

STUDIES FROM THE DEPARTMENT OF PATHOLOGY OF THE COLLEGE OF PHYSICIANS AND SURGEONS, COLUMBIA UNIVERSITY, NEW YORK. Vol. XI. For the Collegiate Years 1906-1908. Reprints. Paper.

STATE HOSPITALS BULLETIN, NEW YORK. Published Four Times a Year by Authority of the State Commission in Lunacy. Vol I. March, 1909. No. 4. Paper. Pp. 702. Single copies, 50 cents.

TWENTY-THIRD ANNUAL REPORT OF THE OHIO DAIRY AND FOOD COMMISSIONER for the Fiscal Year Ending Nov. 15, 1908. Renick W. Dunlap, Commissioner. Paper. Pp. 84. Springfield, Ohio, 1909.

THE PROPHYLAXIS OF YELLOW FEVER. By G. M. Guiteras. Yellow Fever Institute, Bulletin No. 17. February, 1909. Paper. Pp. 14. Washington: Government Printing Office, 1909.

ANNUAL REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA FOR 1907. Boards. Pp. 146. Calcutta: Superintendent Government Printing, India, 1908.

CONTRIBUTIONS FROM THE WILLIAM PEPPER LABORATORY OF CLINICAL MEDICINE. Reprints. No. 6. University of Pennsylvania, Philadelphia, 1907-08. Paper.

THE STORY OF TWO MOSQUITOES. By Charles Cummins Hunt, M.D. Cloth. Pp. 29, with illustrations. Price, 75 cents. [Dixon, Ill.: L. E. Edwards.]

TWENTY-SECOND ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF OHIO. 1907. Cloth. Pp. 375. Columbus, Ohio.

NINETEENTH ANNUAL REPORT EASTERN INDIANA HOSPITAL FOR THE INSANE, 1908. Paper. Pp. 82.

BIENNIAL REPORT OF THE NEBRASKA ORTHOPEDIC HOSPITAL, LINCOLN, 1908. Paper. Pp. 21.